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ESSAYS
ON
EXCHANGE, INTEREST, MONEY,
AND
OTHER SUBJECTS.

By J. R. McCULLOCH,

AUTHOR OF "THE DICTIONARY OF COMMERCE," &c.

I. ON INTEREST AND THE EFFECT OF THE USURY LAWS.
II. ON FOREIGN AND DOMESTIC EXCHANGE.
III. ON MONEY, COINS, BULLION, CURRENCY, SEIGNORAGE, &c.
WITH COPIOUS TABLES OF COINS AND MONEYS OF ACCOUNT.

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Boston, *July*, 1850.

McCulloch's Essays. — Mr. McCulloch has condensed a great mass of knowledge, which men of all parties should be glad to see so put together, in his Political Economy, Exchange, Interest, Taxation, Paper Money, and Principles of Banking. — *London Quarterly Review.*

McCulloch on Taxation. — This work embraces one of the most extensive, and preëminently the most practical department of the all-important science to which it belongs; and it comes to us recommended by the authorship of one of the most distinguished cultivators of that Science.

It is a work with which not only every statesman and legislator, but every reflecting member of the community, ought to make himself acquainted; and we can have no hesitation, therefore, in saying that Mr. McCulloch has, by the thought and labor he has devoted to its composition, added another strong claim to those he had before established upon the gratitude of his countrymen. — *London Quarterly Review.*

ESSAY ON INTEREST.

By J. R. McCULLOCH.

(*Published in the Bankers' Magazine for* 1850.)

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INTEREST.

Interest is the sum which the borrower of a *capital* obliges himself to pay to the lender for its *use*. Interêt : loyer d'un *capital* preté ; ou bien, en termes plus exacts, achat des *services productifs* que peut rendre un capital.

Formerly it was universally believed that, in the event of all legislative enactments fixing and regulating the rate of interest being repealed, its increase or diminution would depend wholly on the comparative scarcity or abundance of money ; or, in other words, that it would rise as money became scarce, and fall as it became more plentiful. Mr. Hume was the first to point out the fallacy of this opinion, (see his *Essay on Interest*,) and to show that the rate of interest is not determined by the amount of the currency, but by *the average rate of profit derived from the employment of capital* No doubt it most frequently happens that, when a loan is made, it is made in the currency of the country. This, however, is really of no consequence. There is obviously no difference between one individual furnishing another with 100 bushels of corn, to be repaid at the expiration of a twelve-month by the delivery of 104 or 105 bushels, or with as much money at four or five per cent. as would have purchased the corn. Besides, it is easy to perceive that the same identical sum of money might serve to negotiate an infinity of loans. Suppose A lends to X £1000, which X immediately pays away to B for commodities of equal value ; but B has no use for the money, and he therefore lends it to Y, who pays it away for commodities to C, who again lends it to Z, and so on ; it is plain the borrowers X, Y, Z, have really received a loan of commodities, or capital, from the lenders A, B, C, worth *three* times (and it might have been worth three hundred or three thousand times) as much as the money employed in settling the transactions. According as the supply of currency, compared with the business it has to perform, is greater or less, we are obliged to give a greater or less number of guineas or livres, pound notes or assignats, for the commodities we wish to obtain. It is plainly, however, by the *advantage* or *profit* we expect to derive from the acquisition of the commodities which constitute capital, and not from the accidental, and, in this respect, unimportant circumstance of a larger or smaller number of pieces of gold or silver, or of bits of engraved paper, being given for them, that the rate of interest, or the compensation given to the lender for the use of his stock, must be determined. It may perhaps be supposed, that when the quantity of metallic money is increased, goldsmiths, jewellers, &c., obtain the raw material for carrying on their business with greater facility; but this is not always the case, and, though it were, it would not affect the rate of interest. No coins are ever sent to the melting pot unless when the currency is either degraded or depreciated; that is, unless it be deficient in weight or *relatively* redundant in quantity. And it is clear that the inducement to promise a high or low rate of interest for loans of metallic money, which it was intended to work up into some species of manufactured goods, would depend, not on the supply of such money, but on the profit to be derived from the operation, a circumstance totally unconnected with the scarcity or abundance of coin.

It appears, therefore, that the rate of interest, at any given period, depends exclusively on the supply of real disposable capital, such as land, machinery, raw and manufactured products, &c., compared with the power of profitably employing it. An increase of metallic money adds only very inconsiderably, and an increase of paper money adds nothing whatever, to the real capital of the country, or to the material of which all loans are really composed. If an increase of paper money was equivalent to an increase of capital, bank notes could not be too much multiplied, and France would have been about twenty times as rich at the era of the assignats as at this moment. It is not denied that considerable mischief and derangement must always be experienced in a highly manufacturing and commercial country like Great Britain, when any sudden check is given to the facility with which discounts are generally obtained, or when the currency is suddenly contracted. But the *frottement* and inconvenience occasioned by a contraction of the currency could only be temporary. It is impossible it could have any lasting effect on the industry of the country. We should still possess the same amount of real capital; and as neither its productive power, nor the liberty to transfer it from one individual to another, would be at all impaired, the real revenue of the state would continue as great as ever, and the same or a greater amount of stock might be disposed of by way of loan. *Money prices* would certainly fall proportionally to the reduction of the currency; or, which is the same thing, the value of commodities would henceforth have to be ascertained by comparing them with a smaller number of bits of gold or paper. But, in every other respect, the business of society would continue exactly on its former footing; and without some change in the rate of profit, on which fluctuations in the value of money have almost no effect, the rate of interest would continue invariable.

Mr. Ricardo has set this principle in a clear and striking point of view. "The rate of interest," he observes, in answer to those who had contended that it would be increased by a diminution of the discounts of the Bank of England, "is not regulated by the rate at which the bank will lend, whether it be five, four, or three per cent., but by the rate of profit which can be made by the employment of capital, and which is totally independent of the quantity and of the value of money. Whether a bank lend one million, ten millions, or a hundred millions, they would not permanently alter the market rate of interest; they would alter only the value of the money which they thus issued. In one case ten or twenty times more money might be required to carry on the same business, than what might be required on the other. The applications to the bank for money, then, depend on the comparison between the rate of profits that may be made by the employment of it, and the rate at which they are willing to lend it. If they charge less than the market rate of interest, there is no amount of money which they might not lend: if they charge more than that rate, none but spendthrifts and prodigals would be found to borrow of them. We accordingly find, that when the market rate of interest exceeds the rate of five per cent. at which the bank uniformly lend, the discount office is besieged with applicants for money; and, on the contrary, when the market rate is even temporarily under five per cent., the clerks of that office have no employment." Ricardo's *Principles of Political Economy*, 1st edit. p. 511.

It is foreign to the object of this article to enter into any detailed examination of the causes which tend to elevate or depress the rate of profit. Whatever diversity of opinion may be entertained respecting them, it is abundantly evident that the rate of interest afforded for the use of borrowed capital must be proportional to the profits which might be derived from its employment. In the United States, the market rate of interest varies from ten to fourteen per cent.; and in Holland, previously to the invasion of the French in 1794, it did not exceed two or three per cent. The immense extent of fertile and uncultivated land in America, the lowness of taxation, and the absence of all restrictive regulations, naturally occasion high profits, and consequently high interest; whilst the sterility and limited extent of the soil of Holland, the excessive load of taxes, laid equally on necessaries and luxuries, and the injudicious restraints imposed upon various branches of commerce, by rendering it impossible to derive large returns from capital, proportionally sink the rate of interest. Had the soil of Holland been as fertile, and taxation as light, as in the United States, profits and interest would, notwithstanding the abundant supply of capital, have been equally high in the one republic as in the other. It is not by the absolute amount of the stock of a country, but by the comparative facilities for its advantageous employment, that the compensation or interest which a borrower can afford for its use must always be regulated. Previously to the termination of the late war, the market rate of interest in this country, for sums which could not be immediately demanded, fluctuated from five to twelve per cent. It has since fallen to four or five per cent.; a decline which has not certainly been occasioned by any sudden increase of capital, but by the extraordinary depression of commerce, and the consequent impossibility of investing stock so as to yield as large a profit as it did during the period when we engrossed almost the whole trade of the world.

Rate of interest varies according to the security for the repayment of the principal and the duration of the loan.

Besides such variations as are proportional to variations in the general and average rate of profit, and which *equally* affect *all* loans, the rate of interest must vary according *to the degree of security afforded for the repayment of the principal, and the duration of the loan.* No capitalist would lend on the personal security of a gunpowder manufacturer, and on *mortgage* over a valuable estate, at the same rate of interest. The extraordinary hazard of the gunpowder trade exposes the stock invested in it to an extreme degree of *risk.* It may be dissipated in an instant, and the power of the borrower to refund the capital he had borrowed annihilated for ever. A lender of money on mortgage is almost entirely relieved from such contingencies. The owner of an estate on which a loan is secured may become bankrupt; but the estate itself will remain, and may either be sold or taken possession of by the lender. It is plain, therefore, that there must be a very great difference in the rate of interest paid by those whose security for the repayment of the principal is so exceedingly different. The gunpowder manufacturer, besides paying a rate or percentage equivalent to the common and average rate of interest derived from the most secure investments, would have to pay an *additional* rate, which, although it might not be designated by that name, would really constitute a *premium* of insurance proportioned to the greater risk to which the lender was exposed of losing his principal. The preferable security offered by the landholder would relieve him from the necessity of paying any considerable premium, or excess of interest, on account of risk; and of course he would be able to borrow at so much less than the manufacturer. We should mistake, however, if we supposed that the latter was thus placed in a comparatively disadvantageous situation. He would be completely indemnified for the greater risk to which his stock was exposed, and for the higher rate of interest which he was in consequence obliged to pay, by the greater *gross profits* he would derive from his business. The constantly operating principle of competition will not permit, taking every thing into account, a greater *net profit* to be permanently derived from one department of industry than from another. But those who invest their stock in employments of more than ordinary hazard, must be able to dispose of their produce at such a price as will yield them the common and average rate of profit, besides affording a surplus adequate to insure their stock against the extra risk to which it is exposed. If this were not the case, no capitalist would place his property in a state of comparative danger, and no undertakings of a hazardous nature would be entered into. Wherever there is risk, that risk must be compensated. And it may, and very frequently does, happen, that the manager of a hazardous branch of industry, paying from ten to twenty per cent. for borrowed capital, is realizing a larger net profit than the landlord who has purchased an estate with money for which he only pays three or four per cent.

This principle is never lost sight of in bargaining for loans. In Athens, the rate of interest was not regulated by law; and it is distinctly mentioned by ancient authors, that the average rate of interest paid by those who employed their stock in the shipping trade with the countries situated on the Euxine and Mediterranean Seas amounted, on account of the hazard of the voyage, to about thirty per cent.; whilst bankers, agriculturists, and others, whose security was preferable, paid only about twelve per cent. Say, in noticing this striking fact, supposes that the thirty per cent. was charged by the voyage; and that, as two voyages to the Crimea or Sicily might be made annually, *maritime* interest really amounted at Athens to sixty per cent. There does not, however, appear to be the least ground for this assertion. It is the average annual rate of interest that is always spoken of. (*Travels of Anacharsis*, vol. iv. p. 368, Eng. Transl.; De Pauw, *Récherches sur les Grecs*, tom. i. p. 287; Say, tom. ii. p. 132.)

But supposing the securities to be equal, capital lent for *short* periods, or in such a way that the lender may obtain possession of it *at pleasure*, will always bring a lower rate of interest than capital lent for a considerable or definite period. No borrower could afford to pay so high a rate of interest for a capital whose productive services he might be deprived of in an instant, and which he could not therefore venture to invest in any employment from which it might not be easily withdrawn, as for a capital lent for a fixed period, especially if that period was of considerable length. But here, as in every other case, the real interests of the borrower and lender coincide. The same circumstances which prevent a borrower from giving as high a rate of interest for a loan payable on demand as if it were payable at a fixed and distant term, induce the lender to rest satisfied with a smaller compensation in the one case than in the other. We wish to be able to exercise a complete command over our capital. No merchant would ever consent to lend his stock on mortgage. If he did, he would no longer be able to carry on his business with advantage. He would be deprived of all power of speculating; and although this might in many instances be for his advantage, yet the flattering opinion which every one entertains of his own abilities and good fortune would but seldom allow him to doubt of its being a very material disadvantage. It is by this principle that we are able to account for the comparatively low rate of interest at which banking companies who pay the sums deposited with them on demand, and governments whose circumstances are perfectly desperate, are able to borrow. A stockholder's mortgage (his claim on the revenue of the country) can be immediately converted into cash at the current prices. And however much the majority of the public creditors may be impressed with a conviction of the inability of the state to discharge *all* the claims upon it, every particular individual, confident in his own good fortune, foresight, and acuteness, flatters himself with the idea that *he*, at least, will be able to predict the coming tempest, and that *he* will be able to sell out before a national bankruptcy.

Interference of government in adjusting the rate of interest.

Instead, however, of leaving the rate of interest to be adjusted by the unfettered competition of the borrowers and lenders, on the principles we have thus briefly explained, the governments of most countries have interfered, either to prohibit the taking interest altogether, or to fix certain rates which it was declared legal to exact, at the same time that any excess over these rates was declared to be *usury*, and prohibited under the severest penalties. In the rude and unenlightened ages in which these enactments had their origin, the precious metals, then the only species of money, were considered as uninfluenced by the same principles which regulate the value of other products. Being used both as standards whereby to ascertain the comparative value of different commodities, and as the equivalents for which they were most frequently exchanged, they acquired a factitious importance, not merely in the estimation of the vulgar, but in that of persons of the greatest discernment. The simple consideration that all buying and selling is really nothing more than the bartering of one commodity for another, of a certain quantity of corn or beef, for example, for a certain quantity of gold or silver, and *vice versa*, was entirely overlooked. The attention was gradually transferred from the money's worth to the money itself; and the wealth of states and of individuals came to be measured, not by the abundance of their disposable produce, by the quantity or value of the commodities with which they could afford to purchase the precious metals, but by the *quantity of these metals* actually in their possession. Because it sometimes happened that the holders of ordinary commodities were unable easily to dispose of them at any price, whilst money was always sure to find a ready and advantageous market, it was considered as something mysterious, as a real *marchandise par excellence.* We cannot, therefore, be surprised at the measures to which the erroneous opinions entertained respecting it necessarily led; or that efforts should have been made to protect the interests of those who were unprovided with so powerful an instrument, from becoming a prey to the encroachments of their more fortunate neighbors. Every individual was allowed freely to dispose or his corn, cattle, land, &c.; but it was imagined there was something peculiar in money, and that the desire to obtain it was so great, that, unless the lenders were restrained in their demands, they would, by taking advantage of the necessities of the borrowers, infallibly ruin them, and engross the whole property of the country.

Another source of the prejudice against stipulating for interest must be sought for in the dislike so universally entertained in remote ages to accumulation. There can be no accumulation without economy, without a saving of income; and this was then not only considered as indicative of a sordid and avaricious disposition, but as being positively hurtful. Before the nature and functions of capital were properly understood, it was believed that it could not be increased otherwise than by injuriously abstracting a portion of the national revenue, and that any advantage it might give to the proprietor must have been obtained at the public expense. It did not occur to our ancestors, that an individual who, by his economy, has accumulated stock, has really added to the wealth of the state, without diminishing that of others; nor were they aware that this stock, when afterwards expended, as is almost always the case, in the support of productive industry, would afford the means of producing an increased income. But reckoning, as they did, the savings of individuals as so much withdrawn from the public income, it was natural enough that they should endeavor to limit the advantage to be derived from their employment.

Much, also, of the prejudice against bargaining for interest, so prevalent in the middle ages, may be traced to the authority of some texts of Scripture, which were understood entirely to prohibit its exaction. It has, however, been shown, that these texts will not really bear this interpretation; but, supposing that they did, nothing, it is plain, could be more absurd than to consider the municipal regulations of a people placed in such peculiar circumstances as the Jews, as general and fixed principles, applicable in all ages and countries.

But, whatever may have been the causes of the efforts so generally made to regulate and limit the rate of interest, it is certain that, so far from succeeding in their object, they have had a precisely opposite effect. Should a borrower find it for his advantage to offer six, seven, or eight per cent. for a loan (and unless it were for his advantage, nothing could possibly induce him to make such an offer), what right has the legislator to interfere, and to prohibit the lender from receiving, and the borrower from paying, more than four or five per cent. Such an interference is not only uncalled for and unnecessary, but it is, in the highest degree, prejudicial. Restrictive laws, instead of reducing, have uniformly contributed to raise the rate of interest. Nor is this any thing more than might have been foreseen and expected. It is plain that no law can be so framed as to prevent a borrower from offering a higher rate of interest than what is fixed by statute; and if the lender had implicit confidence in the secrecy and solvency of the borrower, he might accommodate him with the sum wanted, without requiring any additional interest or *premium of insurance* because of the danger of entering into what the law declares to be an *illegal* transaction. But this must be a very rare case. Gratitude, and a sense of benefits received, are, unfortunately, when they come into contact with self interest, but slender securities for honorable conduct. Numberless unforeseen events occur to weaken and dissolve the best cemented friendships; and a transaction of this kind would undoubtedly afford an additional source of jealousies and divisions. In such matters, indeed, men are more than usually sharp-sighted, and are very little disposed to trust to moral guarantees for the security of their property. But neither the threatenings of the law, nor the powerful inducements which it holds out to dishonest debtors to break their engagements, and treacherously to recede from the stipulations to which they had agreed, have been able to prevent, or even greatly to lessen, what are termed *usurious* bargains. Their only effect has been, to oblige the lender to demand, and the borrower to bind himself to pay, a higher rate of interest than would otherwise have been required. A bargain for more than the statute rate of interest being declared illegal, the lender is thus exposed to an additional *risk*. But no person will gratuitously place his fortune in a situation of comparative hazard; and, therefore, the sum necessary to cover this risk must be proportioned to the greater or less anxiety on the part of government to prevent and punish such bargains; or, in other words, the rate of interest is invariably increased according as the laws intended to reduce it become more severe, and diminished according as they are relaxed.

Thus a capitalist might be inclined to lend a sum at six or seven per cent.; but as the law declares that any individual who shall stipulate for more than five per cent. shall, if detected, forfeit *three times the principal*, it is clear, provided there was no method of defeating this statute, that there must be an end of all borrowing, except when the market rate of interest was below the statutory rate. Whenever it was above that rate, no person would be able to obtain a single farthing in the way of loan. There could, then, be no transference of capital. It would continue locked up in the same hands; and the national property and welfare would, in consequence, suffer severely. Luckily, however, the mutual interest and ingenuity of borrowers and lenders have always proved an overmatch for the enactments of the law. These have done nothing but fetter the transference of stock, and force the borrowers to pay a higher rate of interest for it. What might have been borrowed at six per cent., had there been no hazard from anti-usurious statutes, is, on account of that hazard, raised to perhaps eight or even ten per cent.; and, what is still worse, a contempt for the institutions of society, and a habit of carrying on business in a secret and underhand manner, are generated. The odium which attaches to a positively pernicious regulation, weakens the respect which would otherwise be felt for those which are acknowledged to be advantageous; and that spirit of frankness, openness, and sincerity, which, wherever it predominates, is so highly valuable, is cramped in its development, or altogether supplanted, by duplicity, extortion and cunning.

Effect of the usury laws in Rome.

These conclusions do not rest on theory only, but are supported by a constant and uniform experience. At Rome, during the period of the republic, the ordinary rate of interest was excessively high. The debtors, or plebeians, were every now and then threatening to deprive their creditors, who were generally of the patrician order, not only of the interest of their capital, but of the principal itself. Repeated instances occurred to show that these were not mere empty threats; and the patricians were therefore obliged to indemnify themselves, by means of a corresponding premium, for the risks to which they were exposed. "Des continuels changements," says Montesquieu, "soit par des loix, soit par des plebiscites, naturaliserent à Rome l'usure; car les créanciers, voyant le peuple leur débiteur, leur legislateur, et leur juge, n'eurent plus de confiance dans les contrats. Le peuple, comme un débiteur decrédité, ne tentoit à lui prêter que par *des gros profits*; d'autant plus que, si les loix ne venoient que de temps en temps, les plaintes du peuple étoient continuelles, et intimidoient toujours les créanciers. Cela fit que tous les moyens honnêtes de prêter et d'emprunter furent abolis à Rome, *et qu'une usure affreuse, toujours foudroyée, et toujours renaissante, s'y établit.* Le mal venoient de ce que les choses n'avoient pas été ménagés. Les loix extrêmes dans le bien font naître le mal extréme: *il fallut payer pour le prêt de l'argent, et pour le danger des peines de la loi.*" (*Esprit des Loix*, livre xxii. chap. 21.)

Interest in the East; in the middle ages; in France; in Livonia.

In Mohammedan countries, notwithstanding the positive prohibition in the Koran, the ordinary rate of interest is at least ten or twenty times as high as its ordinary rate in Europe. "L'usure augmente dans les pays Mahometans *à proportion de la sévérité de la defense:* le prêteur s'indemnise du péril de la contravention." (*Esprit des Loix*, liv. xxi. ch. 19.)

During the middle ages, the average rate of profit could not be much higher than at present: "But the clamor and persecution raised against those who took interest for the use of money was so violent, that they were obliged to charge it much higher than the natural price, which, if it had been let alone, would have found its level, in order to compensate for the opprobrium, and frequently the plunder, which they suffered; and hence the usual rate of interest was what we should now call most exorbitant and scandalous usury." Macpherson's *History of Commerce*, vol. i. p. 400. The extraordinary risks to which lenders were exposed rendered the premium of insurance on all sorts of capital excessively high; for, of the fifty and even a hundred per cent. which borrowers then frequently engaged to pay as interest, not more than eight or ten per cent. can properly be said to have been given for the productive services of capital. The rest must be considered as a *bonus*, to compensate the lender for the hazard he encountered of losing the principal itself. It is impossible to form any very accurate estimate of the rate of profit in the middle ages; yet several striking facts may be adduced in support of the opinion here advanced. At Verona, in 1228, the interest of money was fixed by law at twelve and a half per cent. Towards the end of the fourteenth century, the republic of Genoa paid only from seven to ten per cent. to her creditors; and the average discount on good bills at Barcelona, in 1435, is stated to have been about ten per cent. But whilst the rate of interest in Italy and Catalonia, where a considerable degree of freedom was allowed to the parties concerned in bargaining for a loan, was thus comparatively moderate, it was, in despite of its total prohibition, incomparably higher in France and England. Matthew Paris says that, in the reign of Henry III., the debtor paid ten per cent. every two months; and this, though absolutely impossible as a general practice, may not have been very far from the average interest charged on the few loans that were then contracted for. (Hallam's *History of the Middle Ages*, vol. iii. p. 402.)

In France the rate of interest was fixed at five per cent. so early as 1665; and this, a few short intervals only excepted, continued to be the legal rate until the Revolution. Laverdy, in 1766, reduced it from five to four per cent. Instead, however, of the market rate being proportionably reduced, it was raised from five to six per cent. Previously to the promulgation of the edict, loans might have been obtained on good security at five per cent.; but an additional per cent. was now required to cover the risk of illegality. This caused the speedy abandonment of the measure. Storch, *Traité d'Economie Politique*, tome iii. p. 187.

The same thing happened in Livonia in 1786, when the Empress Catherine reduced the legal rate of interest from six to five per cent. Hitherto, says Storch (*in loco supra citato*), those who had good security to offer were able to borrow at six per cent.; but henceforth they had to pay seven per cent. or upwards. And such will be found to have been invariably the case, wherever governments have interfered to reduce the statutory below the market rate of interest.

History of the laws regulating the rate of interest in England.

From the earliest period of the history of England down to the reign of Henry VIII., the taking of interest was absolutely forbidden to all persons within the realm except Jews and foreigners, who, nevertheless, were frequently plundered for the sake of enriching the crown, under the miserable pretext of punishment for what were then called their "hellish extortions." The disorders occasioned by this ruinous interference on the part of government at length became so obvious, that, notwithstanding the powerful prejudices to the contrary, a statute was passed in 1546 (37 Hen. VIII. cap. 7), legalizing the taking of interest to the extent of ten per cent. per annum; and this because, as is recited in the words of the act, the statutes "prohibiting interest altogether have so little force, that little or no punishment hath ensued to the offenders." In the reign of Edward VI. the horror against taking interest seems to have revived in full force; for, in 1552, the taking of *any* interest was again prohibited, "as a vice most odious and detestable," and "contrary to the word of God." But, in spite of this tremendous denunciation, the ordinary rate of interest, instead of being reduced, immediately rose to fourteen per cent., and continued at this rate until, in 1571, an act was passed (13 Eliz. cap. 8) repealing the act of Edward VI., and reviving the act of Henry VIII., allowing ten per cent. interest. In the preamble to this act it is stated, "that the prohibiting act of King Edward VI. had not done so much good as was hoped for; *but that rather the vice of usury hath much more exceedingly abounded*, to the utter undoing of many gentlemen, merchants, occupiers, and others, and to the importable hurt of the commonwealth." This salutary statute was opposed, even by those who, it might have been expected, would have been among the first to emancipate themselves from the prejudices of the age, with all the violence of ignorant superstition. Dr. John Wilson, a man famous in his day, and celebrated for the extent and solidity of his learning, stated in his place in the House of Commons, that "it was not the amount of the interest taken that constituted the crime; but that all lending for any gain, be it ever so little, was wickedness before God and man, and a damnable deed in itself, and that there was no mean in this vice any more than in murder or theft." In order to quiet the consciences of the bench of bishops, a clause was actually inserted, declaring *all* usury to have been forbidden by the law of God, and to be in its nature sin, and detestable. When first enacted, this statute was limited to a period of five years; but, "forasmuch as it was by proof and experience found to be very necessary and profitable for the commonwealth of this realm," it was, in the same reign, made perpetual. (39 Eliz. cap. 18.)

In the 21st of James I. the legal rate of interest was reduced to eight per cent., by an act to continue for seven years only, but which was made perpetual in the succeeding reign. (3 Car. I. cap. 4.) During the commonwealth, the legal rate of interest was reduced to six per cent., a reduction which was afterwards confirmed by the act 12 Car. II. And, finally, in the reign of Queen Anne, a statute (12 Anne, cap. 16) was framed, reducing the rate of interest to five per cent., at which it now stands.

In the preamble to this statute, it is stated, that, "whereas the reducing interest to ten, and from thence to eight, and thence to six, in the hundred, hath from time to time, by experience, been found very beneficial to the advancement of trade and the improvement of lands, it is become absolutely necessary to reduce the high rate of interest of six per cent. to a nearer proportion to the interest allowed for money in foreign states." It was for these reasons enacted, that all bargains or contracts stipulating for a higher rate of interest than five per cent. should be utterly void. And "that all persons who should after that time receive, by means of any corrupt bargain, loan, exchange, chevizance, or interest, of any wares, merchandise, or other thing whatever, or by any deceitful way or means, or by any covin, engine, or deceitful conveyance for the forbearing or giving day of payment, for one whole year, for their money or other thing, above the sum of £5 for £100 for a year, should forfeit, for every such offence, the *triple* value of the monies or other things so lent, bargained," &c.

Laws regulating the rate of interest in Scotland; in Ireland.

In Scotland, previously to the Reformation, no interest could be legally exacted for money. But this great event, by weakening the force of those religious prejudices, which had chiefly dictated the laws prohibiting interest, occasioned the adoption of sounder opinions on the subject, and led to the enactment of the statute of 1587 (11 Parlt. Jac. VI. cap. 52), which legalized the taking of interest to the extent of ten per cent. In 1633 the legal rate was reduced to eight per cent., and in 1661 to six per cent. The statute of Queen Anne, reducing the rate of interest to five per cent., extended to both kingdoms.

The statutes prohibiting the taking of interest in Ireland were not repealed until 1635, when, by the statute 10 Car. I. cap. 22, liberty was given to stipulate for interest to the extent of ten per cent. In 1704 this rate was reduced to eight per cent.; in 1722 it was reduced to seven per cent., and in 1732 it was further reduced to six per cent., at which it has since continued fixed.

Comparison between the market rate and the statutory rate of interest, from 1714 to 1793.

It has been observed by Dr. Smith, that the different statutory regulations, reducing the rate of interest in England, were made with great propriety. Instead of preceding, they followed the fall which was gradually taking place in the market rate of interest; and, therefore, did not contribute, as they otherwise must have done, to raise the rate which they were intended to reduce. Sir Josiah Child, whose celebrated Treatise, recommending a reduction of interest to four per cent. was published about 1670, states positively, that the goldsmiths in London, who then acted as bankers, could obtain as much money as they pleased, upon their servants' notes only, at four and a half per cent. The supposed insecurity of the revolutionary establishment, and the novelty of the practice of funding, occasioned the payment of a high rate of interest for a considerable portion of the sums borrowed by the public in the reigns of William III. and Anne; but private persons, of undoubted credit, could then borrow at less than five per cent. During the reign of George II. the market rate of interest fluctuated from three to four and four and a half per cent. On the 18th of December, 1752, the three per cents. brought the highest price they have hitherto reached, namely, $106\frac{3}{8}$ per cent. On the 20th of September, 1797, the day on which the failure of Lord Malmesbury's attempt to negotiate with the French republic transpired, consols fell to $47\frac{5}{8}$, being the lowest price at which they have ever been sold.

Dr. Smith mentions, that the increased means of profitably investing capital acquired during the war which terminated in 1763, raised the market rate of interest, subsequently to the peace of Paris, to a level with the statutory rate, or perhaps higher. But this rise was only temporary, and it was not until the late war that any very material or general inconvenience was found to result from the limitation of the rate of interest to five per cent.

Expedients for defeating the laws limiting the rate of interest.

It is necessary, however, to observe, that this remark applies exclusively to the loans negotiated by individuals who could offer unexceptionable security; for, ever since the passing of the act 1714, persons engaged in employments of more than ordinary hazard, whose character for prudence and punctuality did not stand high, or who could only offer inferior security, were unable to borrow at five per cent., and have in consequence been compelled to resort to a variety of schemes for defeating and evading the enactments in the statute. The most common device was the sale of an annuity. Thus, supposing an individual whose personal credit was not good, and who had only the life-rent of an estate to give in security, wanted to borrow any given sum, he sold an annuity to the lender sufficient to pay the interest stipulated for, which, because of the risks and odium attending such transactions, was always higher than the market rate, and also to pay the *premium* necessary to insure payment of the principal on the death of the borrower. It is curious to observe, that although the sale of an *irredeemable* life annuity, at a rate exceeding legal interest, was not reckoned fraudulent or usurious, yet, so late as 1743, Lord Hardwicke held, that in their less exceptionable form, or when they were *redeemable*, annuities could only be looked upon as an evasion of the statute of usury, and a loan of money.—*Considerations on the Rate of Interest*, by E. B. Sugden, Esq. *Pamphleteer*, vol. viii. p. 278. But the extreme inexpediency of this distinction soon became obvious, and the law on this subject is now entirely changed. The greater extension of the traffic in annuities, and the advantage of giving as much publicity as possible to such transactions, led to various parliamentary inquiries and regulations respecting them in the early part of the reign of his late majesty. The consequence has been, that irredeemable annuities are now nearly unknown, and that the sale of a redeemable annuity cannot be impeached, although it should appear on the face of the deeds that the lender had secured the principal by effecting an assurance of the borrower's life. By the act 53 Geo. III. cap. 141, it is enacted, "That a memorial, setting forth the date of every deed, bond, instrument, or other assurance, whereby an annuity or rent-charge shall be granted for one or more life or lives, or for a certain number of years, the names of all the witnesses, and of all the parties thereto, the sum given for the security, and the amount of the annuity itself, shall be registered in the Court of Chancery." This act only applies to England and Wales.

During the greater part of the late war, however, the usury laws operated, not to the prejudice of one, but of all classes of borrowers. The extent of the loans, the high rate of interest given by the state, the facility of selling out of the funds, the regularity with which the dividends were paid, and the temptations arising from the fluctuations in the price of funded property, diverted so large a proportion of the floating capital of the country into the coffers of the treasury, as to render it next to impossible for a private individual to borrow at the legal rate of interest, except from the trustees of public companies, or through the influence of circumstances of a very peculiar nature. The proprietors of unencumbered freehold estates, of which they had the absolute disposal, were almost universally obliged to resort to those destructive expedients which had formerly been the resource only of spendthrifts, and persons in the most desperate circumstances. Annuities were not unfrequently granted for the term of several lives, at the rate of twelve, fourteen, fifteen, and even twenty per cent., exclusive of the premium of insurance on the lives of the persons named in the grant of the annuities. Mr. Onslow, in his speech on the usury laws, 23d of May, 1816, mentions that he knew the case of a gentleman possessed of a very large estate in *fee-simple*, who had been compelled to grant an annuity for *four* lives (and the survivor of them), named by the grantee, for *eight* years' purchase.

House of Commons' Report on the Usury Laws.

The Report of the Committee on the Usury Laws, laid before the House of Commons in 1818, contains much valuable evidence, establishing the impolicy and the pernicious effects of these laws in the clearest manner. Mr. Sugden, a gentleman very extensively concerned in the management of landed property, stated, that when the market rate of interest rose above the legal rate, the landed proprietor was compelled to resort to some shift to evade the usury laws. For this purpose, Mr. Sugden informed the committee he had "known annuities granted for *three* lives, at ten per cent. upon fee-simple estates, unencumbered, and of great annual value, in a register county. He had also known annuities granted for *four* lives, and more would have been added, but for the danger of equity setting aside the transaction on account of the inadequacy of the consideration. Latterly many annuities were granted for a term of years certain, not depending upon lives." On being asked whether, if there were no laws limiting the rate of interest, better terms could or could not have been obtained, Mr Sugden answered, "I am decidedly of opinion that *better terms* could have been obtained; for there is a stigma which attaches to men who lend money upon annuities, that drives all respectable men out of the market. Some leading men did latterly embark in such transactions, but I never knew a man of reputation in my own profession lend money in such a manner, although we have the best means of ascertaining the safest securities, and of obtaining the best terms. In all loans, two solicitors are invariably concerned, one for the borrower and one for the lender; and although the borrower always pays the expense of the securities, yet a regular professional bill is invariably made out; whereas, in the case of an annuity, although it is in strictness a loan, only one solicitor is employed, and he never makes out a regular bill, but charges what is termed a *lumping sum*, for all his expense and trouble in the transaction." And, in another place, Mr. Sugden observes, "the temptation on the part of a solicitor, to lend money upon annuities, is very strong, because, *without any check upon his charges he demands whatever sum he pleases, and he takes care that it is instantly paid; for in no instance is the borrower allowed to leave the room till he has paid the solicitor's charge.*" "Nothing," Mr. Sugden justly adds, "short of a *repeal of the usury laws* can put a stop to the abuses which attend grants of annuities; they strongly encourage a spirit of gambling; for, as the repayment of the money lent cannot be enforced, and the annuity is granted upon a contingency, the borrower too frequently neglects to provide for the payment of the loan, and trusts to chance for the determination of the annuity."

"The laws against usury," says Mr. Holland, partner of the house of Baring, Brothers, and Company, and one of the best informed merchants in the country, "drive men in distress, or in want of money, to much more disastrous modes of raising it than they would adopt if no usury laws existed. The landowner requires capital to increase his live stock, or improve his land, or for any other purpose, at a period when the government is borrowing money at above five per cent., or when the funds give a greater interest than five per cent.; no one will then lend to the landowner, because his money is worth more to him than the law allows him to take; the landowner must, therefore, either give up his improvements, or borrow money on annuity interests, on much more disadvantageous terms than he could have done if no law existed against usury. The man in trade, in want of money for an unexpected demand, or disappointed in his returns, must fulfil his engagements or forfeit his credit. He might have borrowed money at six per cent., but the law allows no one to lend it to him, and he must sell some of the commodity he holds, at a reduced price, in order to meet his engagements. For example, he holds sugar which is worth 80s.; but he is compelled to sell it immediately for 70s. to the man who will give him cash for it, and thus actually borrows money at twelve and a half per cent., which, had the law allowed him, he might have borrowed from a money dealer at six per cent. It is known to every merchant, that *cases of this kind are common occurrences in every commercial town, and more especially in the metropolis.* A man in distress for money, pays more interest, owing to the usury laws, than he would if no such laws existed; because now he is obliged to go to some of the disreputable money lenders to borrow, as he knows the respectable money lender will not break the laws of his country. The disreputable money lender knows that he has the *ordinary risk* of his debtor to incur in lending his money, and he has further to encounter the *penalty of the law*, for both of which risks the borrower must pay. If no usury laws existed in common cases, and where a person is respectable, he might obtain a loan from the respectable money lender, who would then only have to calculate his ordinary risk, and the compensation for the use of his money."

Resolutions of the Committee.

In every part of the appendix to the *Report*, we meet with equally conclusive evidence of the pernicious effects of the laws restraining the rate of interest. And the committee admitted the full force of this evidence, by agreement to the following resolutions: 1st, "That it is the opinion of this committee that the laws regulating or restraining the rate of interest have been extensively evaded, and have failed of the effect of imposing a maximum on such rate; and that, of late years, from the constant excess of the market rate of interest above the rate limited by law, they have added to the expense incurred by borrowers on real security, and that such borrowers have been compelled to resort to the mode of granting annuities on lives; a mode which has been made a cover for obtaining a higher rate of interest than the rate limited by law, and has farther subjected the borrowers to enormous charges or forced them to make very disadvantageous sales of their estates. 2d, That it is the opinion of this committee, that the construction of such laws, as applicable to the transactions of commerce as at present carried on, have been attended with much uncertainty as to the legality of many transactions of frequent occurrence, and consequently been productive of much embarrassment and litigation. 3d, That it is the opinion of this committee, that the present period, when the market rate of interest is below the legal rate, affords an opportunity peculiarly favorable for the repeal of the said laws."

In spite, however, of the recommendation of the committee, and of the clear and satisfactory nature of the evidence on which it is founded, the popular prejudice on this subject continues so strong, that there does not seem much reason to expect that this desirable measure will be speedily effected.

Pernicious effects of laws.

It is most absurdly supposed, that, were the laws limiting the rate of interest repealed, every individual who has capital to lend would henceforth indulge in all those mean and disgraceful practices which at present characterize the lowest classes of money brokers. But it might just as reasonably be supposed, that were country gentlemen allowed to sell game, they would immediately become addicted to all the vices of the poacher. The truth is, that if the rate of interest were left to be adjusted by the unrestricted competition of the parties, there would be almost no employment for the inferior class of money dealers. Except when the *market* rate of interest is below the *legal* rate. the usury laws prevent all persons, whose credit is not extremely good, from obtaining loans from capitalists of the highest character, and force them to have recourse to those who are less scrupulous. Supposing the market rate of interest to be six or seven per cent., an individual in ordinarily good credit might, were the usury laws abolished, easily obtain a loan at that rate. But the law having declared that no more than five per cent. shall be taken, and consequently having affixed a species of stigma to those lenders who bargain for a higher rate, necessarily excludes the rich and more respectable capitalists from the market, and obliges borrowers to resort to those of an inferior character, who, in addition to the premium for the risk incurred by entering into an illegal transaction, must receive an indemnification for the *odium* which in such cases always attaches to the lender. It is idle and ridiculous to attempt to secure individuals against the risk of imposition in pecuniary, more than in any other species of transactions. But although the object were really desirable, it could not possibly be obtained by such inadequate means. The usury laws generate the very mischief they are intended to suppress. Far from diminishing, they most unquestionably multiply usurious transactions in a tenfold proportion, and powerfully aggravate all the evils they were designed either to mitigate or remove.

Nothing can be more unreasonable, or more entirely unfounded, than the clamor that has been set up against usurers, as money-lenders are sometimes termed. because of their exacting a higher rate of interest than ordinary from prodigals and spendthrifts. This, surely, is the most proper and efficient check that can be put upon the thoughtless or unprincipled extravagance of such persons. Supposing the security of a prodigal and of an industrious man to be nearly equal, and this can scarcely ever be the case, does not the capitalist who would lend to the latter at a lower rate of interest than he would lend to the former, confer a real service on his country ? Does he not prevent those funds which ought to be employed in supporting useful labor, and in adding to the real wealth of the nation, from being wasted in ridiculous extravagances or boisterous dissipation ?

They do not protect the prodigal and unwary.

But, perhaps, we shall be told that this is mistaking the object of the usury laws ; that they were not intended to force capitalists to lend to spendthrifts at the same rate of interest as to industrious persons, but to protect the prodigal and unwary from the extortion of usurers, by declaring any stipulation between them for more than a given rate of interest, to be null and void. But why all this solicitude about the least valuable class of society? Why fetter and restrict the free circulation of capital amongst those who would turn it to the best account, lest any portion of it might chance to fall into the hands of those who would squander it away? If the prevention of prodigality be an object of sufficient importance to justify the interference of the legislature, why not at once put the prodigal under an *interdict?* This is the only way in which it is possible to restrict him. It is not so much by borrowing money at high interest, as by contracting debts to merchants, on whose charge there is no check, that spendthrifts generally run through their fortunes. Mr. Bentham has justly observed, that so long as a man is looked upon as one who will pay, he can much easier get the goods he wants than he could the money to buy them with, though he were content to give for it twice or thrice the ordinary rate of interest. How ridiculous is it, then, to stimulate this natural facility of purchasing, to permit prodigals to borrow (for it is really borrowing) the largest supplies of food, clothes, &c., at twenty, thirty, or even an hundred per cent. interest, at the same time that we inflict a real injury on every other class of society, rather than permit them to borrow the smallest supply of money at more than five per cent. Instead of being of any service, this restriction is evidently injurious to the prodigal. It narrows his choice, and drives him from a market which might have proved much less disadvantageous, to one in which no disgrace attaches to the exaction of the most exorbitant interest, and where he can scarcely escape being ruined.

Neither is the outcry raised against capitalists for taking advantage of the necessities of industrious individuals, in any degree better founded than that which is raised against them for taking advantage of the extravagant and thoughtless disposition of the prodigal or the simple. According as a person has a character for sobriety, and for punctuality in making his engagements, and according to the presumed state of his affairs at the time, so will he be able to borrow. To say that a capitalist took advantage of the necessities of any individual, is only saying that he refused to lend to a person in suspicious or necessitous circumstances, at the same rate of interest he would have done had he been in high credit, or, which is the same thing, had there been no *risk* of losing the principal; and had he not acted in this manner, should we not have justly considered him as a fool or a madman?

But as has already been shown, whatever may be the extortion of lenders, the usury laws afford no means of checking it; on the contrary, they compel the borrowers to pay over and above the common rate of interest, a *premium* sufficient to indemnify the lender for the risk and odium incurred in *breaking them.* They attempt to remedy what is not an evil, and what, consequently, ought not to be interfered with; and in doing this they necessarily create a real grievance. What should we have thought of an act of parliament to compel the underwriters to insure a gunpowder magazine and a salt warehouse on the same terms? Yet this would not have been in any respect more absurd than to enact that the same rate of interest should be charged on capital lent to those whose security is widely different.

There were no usury laws in Holland.

Luckily we are not left to infer from general principles, however well established, the many advantages that would result from a repeal of the laws limiting the rate of interest. The case of Holland furnishes a practical and striking proof of the correctness of the theory we have been endeavoring to establish. It is an undoubted fact, that the rate of interest has been, for a very long period, lower in Holland, than in any other country in Europe; and yet Holland is the only country in which usury laws are altogether unknown, where capitalists are allowed to demand, and borrowers to pay any rate of interest. Strictly speaking, this applies only to the state of Holland previously to the Revolution in 1795. The enactments of the Code Napoleon were subsequently introduced; but it appears, from the Report of the Parliamentary Committee on the Usury Laws, that they have not, in any instance, been acted upon. Notwithstanding all the violent changes of the government, and the extraordinary derangement of her financial concerns in the course of the last twenty years, the rate of interest in Holland has continued comparatively steady. During the whole of that period, persons who could offer unexceptionable security have been able to borrow at from three to five and a half per cent.; nor has the average rate of interest charged on capital, advanced on the worst species of security, ever exceeded six or seven per cent., except when the government was negotiating a forced loan. The general rate of discount in Holland is from four to five per cent., and occasionally from three to three and a half per cent., but very seldom lower. During the Revolution it had been at six and seven per cent., and even at eight; but this was generally owing to some *forced financial operation* on account of the government, and was never of long duration. The following is the average rate of discount at Amsterdam and Rotterdam from 1795 to 1817:

1795—4, 4½, 5, 6.
1796—4, 4½, 5, 6.
1797—4, 4½, 5, 5½, 6, 9, 12.
1798—4, 4½, 5, 5.
1799—3, 4, 4½, 5.
1800—4, 4½, 5, 6.
1801—4, 4½, 5, 6.
1802—4, 5, 5½, 6.
1803—4, 5, 5½, 6.
1804—4, 4½, 5, 5½, 6.
1805—4, 5, 5½, 6, 9.
1806—4, 4½, 5, 5½, 6, 9.
1807—4, 4½, 5, 6.
1808—4, 3½, 4½, 5, 6.
1809—4, 4½, 5, 6.
1810—4, 4½, 5, 6.
1811—3, 3½, 4, 5.
1812—3, 3½, 4, 5.
1813—3, 3½, 4, 5, 6.
1814—4, 5, 5½, 5, 6, 6½.
1815—5½, 6. 6½, 7.
1816—5, 5½, 6, 6½, 7.
1817—5, 5½, 6.

"The Bank of Amsterdam never discounts at a higher rate than five per cent.; but they discount at a lower rate, and vary their discounts according to the abundance of capital, never exceeding five per cent., and occasionally as low as two and a half and three." (Mr. Holland's evidence, *Report of the Committee on the Usury Laws*, p. 45.) But in this country, where the law declares that no more than five per cent. shall be taken, the rate of interest for capital advanced on the best landed security has, in the same period, varied from five to sixteen or seventeen per cent., or *five* times as much as in Holland. Surely this ought to put to rest all doubts as to the impolicy and the inefficiency of the usury laws.

Legal rate of interest in France.

In France the usury laws were abolished at the Revolution; and it is distinctly stated, that their abolition *was not attended by any rise of interest.* Storch, *Economie Politique,* tome iii. p. 187. According to the *Code Napoleon* only six per cent. interest is allowed to be taken in commercial affairs, and five per cent. when money is advanced on the security of real property. There is not, however, any difficulty in evading this law. The method resorted to for this purpose is to give a *bonus* before completing the transaction, or, which is the same thing, to frame the obligation for the debt for a larger sum than was really advanced by the lender. None of the parties particularly interested can be called to swear to the fact of such a *bonus* being given; so that the transaction is unimpeachable, unless a third party, who was privy to the settling of the affair, can be produced as a witness. The Bank of France never discounts at a higher rate of interest than five per cent., but sometimes at a lower rate.

In Hamburg.

In Hamburg the rate of interest is quite unrestricted; or, if there be a written law restraining it, it has become altogether obsolete. The rate, therefore, varies according to circumstances. Occasionally it has been at seven, eight, and even ten per cent.; and in 1799, a period of great mercantile embarrassment and insecurity, it was as high as fourteen per cent. Generally, however, the rate of discount on good bills does not exceed four or five per cent. *Report on Usury Laws,* p. 46.

In Russia.

In Russia the legal rate of interest is six per cent. But as Russia is a country capable of much improvement, and where there are very great facilities for the advantageous employment of capital, the market rate of interest is invariably higher than the statute rate, and the law is as constantly as it is easily evaded. *Ibid,* and Storch, tome iii. p. 207.

In Austria.

At Trieste, and throughout the Austrian empire in general, the usual rate of interest is fixed by law at six per cent.; but capital can seldom be obtained for less than eight or ten per cent. See Report, *ubi supra.*

In Leghorn.

At Leghorn the ordinary rate of interest is a half per cent. per month, or six per cent. per annum; but there is no law to prevent the taking of a higher rate.

In Spain.

In Spain the ordinary rate of interest is six per cent.; but no law exists against taking a higher rate, and it seldom falls below five, or rises above seven per cent.

In the United States.

In the United States legal interest is fixed at six per cent.; but the market rate fluctuates from ten to twelve per cent. Efforts, Mr. Birbeck informs us, are now making in various parts of the Union, particularly in Virginia and North Carolina, to do away the restraints on usury, which, as he justly observes, "*operate merely as a tax on the needy borrower.*" *Letters from Illinois*, p. 36.

Usury laws do not reach the government.

If usury laws are to have any existence, they ought certainly to be made to operate on the greatest of all borrowers: on those who do not borrow on their own credit, but on that of others. Is it not the extreme of folly, that whilst an industrious manufacturer, or agriculturist, is prevented from giving more than five per cent. for capital, which he might be able to invest so as to yield ten or twelve per cent., government should be allowed to borrow at six, eight, ten or twenty per cent.? What is this but holding out a bait to loan-mongers, and causing the capital of the country to flow with an accelerated and unnatural velocity into the treasury? Nothing surely can be more impolitic than this. If we are to have usury laws, they ought to operate alike on every class of borrowers; and considering the superior attractions which the facility of repossessing the principal gives to the investment of capital in the funds, the rate of interest at which government should be allowed to borrow should be *less* than the rate at which private individuals might borrow.

We trust, however, that we have said enough to show the inexpediency and the pernicious tendency of all such regulations. If a landlord is to be allowed to take the highest rent he can get offered for his land, a farmer the highest price for his raw produce, a manufacturer for his goods, why should a capitalist be restricted and fettered in the employment of his stock? Every principle of natural justice, and of sound political expediency, is outraged by such a distinction.

So long as the market rate of interest continued higher than the statutory rate, it cannot be doubted that considerable inconvenience would have resulted from any *sudden* abolition of the usury laws. It is certain, indeed, that this inconvenience would have been very speedily compensated by the check which the abolition would have given to the traffic in annuities, and by the easier circulation and more advantageous distribution of capital. Now, however, when the market is fallen below the statutory rate of interest, no inconvenience could attend their repeal. It could not lead to any demand for payment of borrowed money, for no individual would require payment of what he could not relend to greater advantage. But, while their repeal would be in no respect disadvantageous, it would enable those who are engaged in employments of more than ordinary hazard, to procure adequate supplies of stock on more favorable terms; and it would also secure us against the risk of future mischief should the market again rise above the legal rate of interest. It is unnecessary, however, to urge the *immediate* repeal of the usury laws, We think it quite visionary to apprehend any danger from the instant application of a sponge to the whole of the anti-usurious statutes, but it is enough if they are repealed *gradually*. To avoid exciting any alarm in the minds of the most timid, the rate at which capital may be legally lent at interest might be annually raised *one* or *one half* per cent., until the rate had been extended to eight or ten per cent., when it is clear every restrictive regulation might be abolished without the possibility of the smallest derangement happening in consequence.

Were the usury laws abolished, it would be proper to frame a statute which should fix the interest to be paid in those cases in which no previous agreement had been made respecting it. But, as in cases of this description there is very frequently considerable doubt whether it was the intention of the parties at the time the transaction took place, that any interest should be charged, it would be proper to give the borrower the full benefit of this doubt, by fixing the rate payable in such cases at the lowest market rate.

Error of some writers on the subject of a low rate of interest.

Before concluding, we may remark, that until the laws regulating the rate of profit and the increase of capital had been accurately investigated, the great wealth and commercial prosperity of Holland was invariably appealed to as a practical proof of the advantages of a low rate of interest. But Sir Josiah Child, and those who have insisted so much on this example, forget that the lowness of interest in Holland was the necessary effect of the circumstances in which that country was placed; of the lowness of profits, caused by the oppressiveness of taxation, and the deficient supply of fertile soil, and not of any *interference* on the part of the government. Neither was this lowness of interest any advantage, but a positive disadvantage. A country whose average rate of profit, and consequently of interest, has been reduced considerably below the level of surrounding nations, may, notwithstanding, abound in wealth, and be possessed of an immense capital; but it would be the height of error to suppose that this reduction of profits and interest could have facilitated their accumulation. Capital cannot be accumulated otherwise than by a saving of income; and wherever incomes are large, and this will always be the case where the rate of profit is comparatively high, there must be a proportionably increased facility of gratifying the prevalent passion for accumulation. The case of Holland, far from contradicting, furnishes a striking example of the truth of this principle. Sir William Temple mentions that her trade was rather on the decline in 1670; and the large capital of which she was then in possession had been accumulated previously to her wars with Cromwell, and when the rate of profit was much higher than at any subsequent period. Low profits are a certain proof that society has become clogged in its progress. They show that it is approaching, if it has not already reached the stationary state, and that, unless measures can be devised for relieving the pressure on the resources of the state, it will be thrown back in the career of improvement, and outstripped by its neighbors. The rate of profit and the rate of interest are ordinarily twice as high in the United States as in Great Britain or France, and it is to this that the more rapid advancement of the former in wealth and population is entirely to be ascribed. High profits, it is true, may not in every instance be accompanied by a great degree of prosperity; for a despotic government, or the want of sufficient protection, may paralyze all the efforts of those who are otherwise placed in the most favorable circumstances for the accumulation of wealth. But, *if the government be equally liberal, and if property be equally well secured, the degree of national prosperity will be correspondent to the rate of profit.* The demand for labor, or, which in effect is the same thing, the funds for supporting the largest and most valuable portion of society increase or diminish in exact proportion to the increase or diminution of profits. Wherever they are high the laborer is well paid, and the society rapidly augments both its population and its riches; on the other hand, wherever they are low, the demand for labor is proportionably reduced, and the progress of society rendered so much the slower.

Instead, therefore, of a low rate of profit, and a low rate of interest, for the one must be always directly as the other, being any proof of the flourishing situation of a country, it is distinctly and completely the reverse. High profits show that capital may be readily and beneficially invested in the different branches of industry, and wherever this is the case, it will be better for the borrower to pay a higher rate of interest than it would be for him to pay a lower rate, in countries where there is less facility of employing his stock with advantage. The borrower who pays ten or twelve per cent. for capital in the United States, generally makes a more profitable bargain than the English borrower who pays only four or five per cent. It is obviously not by the circumstance of the rate of interest payable on loans being absolutely high or low, but by the proportion between that rate and the average rate of profit, that we must determine whether they have been obtained on favorable or unfavorable terms. C. C.

ESSAY ON EXCHANGE.

In Political Economy the term exchange is commonly employed to designate that species of mercantile transactions by which the debts of individuals residing at a distance from each other are either partially or wholly liquidated, without the intervention of money. The object of this article is to explain the nature of these transactions, and the principles on which they are founded.

This will be best effected by treating, *first*, of the exchange between different parts of the same country; and, *secondly*, of that between different and independent countries.

CHAPTER I.

Inland Exchange.

Suppose a merchant of London orders his agent in Glasgow to purchase and send to him a thousand pounds worth of cottons; then, although it should not suit the Glasgow merchant to commission goods of equal value from his London correspondent, the latter may nevertheless be under no necessity of remitting cash to Glasgow to discharge his debt. Among cities, or countries, having a considerable intercourse together, the debts mutually due by each other are found, in ordinary cases, to be nearly equal. And, therefore, the Glasgow merchant, who has shipped the cottons for London, does not transmit the bill drawn by him on his correspondent for their price directly to London to be cashed, for that would subject him to the expense of conveying the money home from London to Glasgow, but he gets value from *some other merchant in Glasgow*, who has payments to make in London, on account of teas, wines, &c. imported from that city, and who, unless he could procure such a bill, would be obliged to remit their price in money. The bill on account of the cottons is, therefore, either drawn in favor of the person to whom the money for the tea and wine is owing in

London, or it is drawn in favor of the tea merchant in Glasgow, and endorsed to him; and this last person, by presenting the bill to the purchaser of the cottons, receives its value, and consequently the price of the cottons, and the price, or part of the price, of his tea and wine, at the same moment. By this simple contrivance the expense and risk attending the double transmission, first, of money from London to Glasgow to pay the cottons, and, second, of money from Glasgow to London to pay the teas and wines, is entirely avoided. The debtor in one place is changed for the debtor in the other; and both accounts are settled without the intervention of a single farthing.

The bill drawn and negotiated in such a transaction is termed an *inland* bill of exchange. If the transaction had taken place between London or Glasgow and a foreign city, it would have been termed a *foreign* bill of exchange.

A bill of exchange may, therefore, be defined to be, "an order addressed to some person residing at a distance, directing him to pay a certain specified sum to the person in whose favor the bill is drawn, or his order."

In mercantile phraseology, the person who draws a bill is termed the *drawer;* the person in whose favor it is drawn, the *remitter;* the person on whom it is drawn, the *drawee;* and after he has accepted, the *acceptor.* Those persons into whose hands the bill may pass previously to its being paid, are, from their writing their names on the back, termed *endorsers;* and the person in whose possession the bill is at any given period, is termed the *holder* or *possessor.*

Circumstances which determine the Price of Inland Bills of Exchange.

The price of bills of exchange fluctuates according to the abundance or scarcity of them in the market, compared with the demand. Thus, to revert to our former example, if we suppose the debts reciprocally due by London and Glasgow to be equal, whether they amount to £10,000, £100,000, or any other sum, they may all be discharged without the agency of money, and the price of bills of exchange will be at PAR; that is, a sum of £100 or £1000 in Glasgow will purchase a bill for £100 or £1000 payable in London, and *vice versa.* But if these two cities are not mutually indebted in equal sums, then the price of bills exchange will be increased in the city which has the greatest number of payments to make, and will be proportionally reduced in that which has the fewest. If Glasgow owe London £100,000, whilst the debts due by London to Glasgow only amount to £90,000, it is clear, inasmuch as the merchants of Glasgow have a larger sum to remit to London than the merchants of London have to remit to Glasgow, that the price of bills on London would rise in Glasgow, because of the increased competition; and that the price of bills on Glasgow would fall in London, because of the proportionally diminished competition. And hence a larger sum would be required to discharge any given amount of debt due by Glasgow, and a less sum would be required to discharge a corresponding amount of debt due by London; or, which is the same thing, the exchange would be in *favor* of London, and *against* Glasgow. Bills on London would sell in Glasgow for a *premium*, and bills on Glasgow would sell in

London at a *discount*, the amount of the premium in the one case, and of the discount in the other, being obviously equal.

On the supposition that the balance of £10,000, due by Glasgow, depressed the exchange of that city on London *one per cent.*, it would at first sight appear as if it would cost Glasgow £101,000 to discharge its debt of £100,000 due to London ; and that, on the other hand £89,108 would be sufficient to discharge the debt of London to Glasgow. But a very little consideration will serve to show that this could not really be the case. No exchange transactions can take place between different cities, until there be both debtors and creditors of the one residing in the other. And hence, when the exchange became unfavorable to Glasgow, the premium paid by the Glasgow merchants for bills drawn on London would not go into the pockets of their creditors in that city, but into the pockets *of their neighbors in Glasgow, to whom London was indebted*, and from whom the bills had been purchased. The loss to Glasgow would, therefore, be limited to the *premium* paid on the balance of £10,000. Thus, supposing that A of Glasgow owes D of London £100,000, and that C of London owes B of Glasgow £90,000 ; A will pay to B £91,000 for a bill, or order, on C to pay D £90,000. In this way, the £90,000 London debt at Glasgow would be quite cleared off; the premium, which is lost by the debtor to London in Glasgow, being gained by its creditor in the same place. If the business had been transacted in London, C with £89,108, would have purchased of D a bill for £90,000 payable by A, so that, in this case, the gain would have fallen to the debtor C, and the loss to that of the creditor D, both of London. The complexity of real transactions does not affect the principles on which they are founded ; and to whatever extent Glasgow might be indebted to London, or London to Glasgow, the only disadvantage under which either of them would in consequence be placed, would be the unavoidable one of paying the expense of remitting the *balance* of debt.

Natural Limit to Fluctuations in the Exchange.

The expense of transmitting money from one place to another forms the natural limit to fluctuations in the exchange. If 20s. sufficed to cover the expense and risk attending the transmission of £100 from Glasgow to London, it would be indifferent to a Glasgow merchant, whether he paid one per cent. *premium* for a bill of exchange on London, or remitted money direct to that city. If the premium were less than one per cent. it would be clearly his interest rather to make his payments by means of bills of exchange than by remittances ; and that it could not exceed one per cent. is obvious, for every individual would rather directly remit money, than incur an unnecessary expense, by purchasing a bill on London at a greater *premium* than would suffice to cover the expense of a money remittance. If, owing to the badness of the roads, to disturbances in the country, or to any other cause, the expense of remitting money from Glasgow to London should be increased, the difference in the rate of exchange between them *might* also be proportionally increased. But in every case, the extent to which this difference could attain would necessarily be limited by, and could not, for any considerable period, exceed, the cost of making remittances in cash.

Exchange transactions become more complex, when one place, as is very often the case, discharges its debts to another by means of bills drawn on a third place. Thus, although London should owe nothing to Glasgow, if Glasgow be indebted to London, London to Manchester, and Manchester to Glasgow; Glasgow would either wholly or partially discharge its debt to London by a bill drawn on Manchester. It would wholly discharge it, provided the debt due to Glasgow in Manchester was equivalent to the debt due by Glasgow to London. But if this be not the case, Glasgow must either remit money to London to discharge the *balance* of debt, or bills drawn on some other place indebted to her.

Transactions in inland bills of exchange are almost entirely conducted by bankers, who charge a certain rate per cent. for their trouble, and who, by having a credit in those places to which they are in the habit of remitting bills, are enabled, on all occasions, to supply the demands of their customers. In Great Britain, London, because of its intimate connection with other parts of the country, occasioned partly by its immense commerce, partly by its being the seat of government, and the place to which the revenue is remitted, and partly by its currency consisting of Bank of England paper, for which the paper currency of the country banks is rendered exchangeable, has become the great focus in which all the money transactions of the whole empire centre, and in which they are ultimately adjusted. In consequence of these various circumstances, but chiefly of the demand for bills on London to remit revenue, and of the superior value of Bank of England currency, the exchange between London and the other parts of the country is invariably in its favor. Bills on London, drawn in Edinburgh and Glasgow, were formerly made payable at forty days' date, which is equivalent to a *premium* of about one half per cent.; but owing to the greater facility of communication, this *premium* is now reduced to twenty days' interest, or to about one fourth of one per cent. Bills for remitting the revenue from Scotland are now drawn at thirty days; previously to 1819 they were drawn at sixty days.

What has been already stated is sufficient to show, that, however well fitted bills of exchange may be for facilitating the operations of commerce, and saving the trouble and expense attending the transportation of money, it is impossible to adjust mercantile transactions by their means, except in so far as the accounts mutually balance each other. A *real* bill of exchange is merely an order entitling the holder to receive payment of a debt *previously contracted* by the person on whom it is drawn. It is essential to the existence of such a bill that an equivalent amount of debt should first be due. And hence, as the amount of the real bills of exchange drawn on any number of merchants cannot exceed the amount of their debts, if a greater sum be owing them than they owe to others, the *balance*, it is obvious, must either be paid in money, or by the delivery of some sort of commodities. If, as in the example just given, Glasgow owe London £100,000, while London only owes Glasgow £90,000, a reciprocal transfer of debts may be made to the extent of £90,000. But the Glasgow merchants cannot discharge the additional £10,000 by means of bills drawn on London; for, by the supposition, London only owed them £90,000, and they have already drawn for its amount. The balance, therefore, must be discharged by an actual money payment, or by the delivery of some species of commodity, or by bills drawn on some third party who may be indebted to Glasgow.

Fictitious Bills of Exchange.

We do not mean by this to insinuate that there are no *fictitious* bills of exchange, or bills drawn on persons who are not really indebted to the drawer, in the market. In every commercial country, bills of every description are always to be met with; but they are only a device for obtaining loans, and do not and cannot transfer real debts. A merchant in London may form a connection with a merchant in Glasgow, and draw bills of exchange upon him payable a certain number of days after date, which the latter may retire by selling in Glasgow an equal amount of bills drawn upon his correspondent in London. The merchants who purchase, or the bankers who discount these bills, really advance their value to the drawers, who, as long as they continue, by means of this system of *drawing* and *redrawing*, to provide funds for their payment, continue in fact to command a borrowed capital equal to the amount of the fictitious paper in circulation. It is clear, however, that the negotiation of such bills has no effect in the way of transferring and settling the real *bona fide* debts reciprocally due between any two or more places. Fictitious bills mutually balance each other. Those drawn by London on Glasgow are exactly equal to those drawn by Glasgow on London, for the one set is drawn to pay the other—the second destroys the first, and the result is nothing.

The method of raising money by the discount or sale of fictitious bills, has been severely censured by Dr. Smith, as entailing a ruinous expense on those engaged in it, and as being resorted to only by projectors, or persons of suspicious credit. When fictitious bills are drawn at two months' date, it is common, in addition to the ordinary interest of five per cent., to charge a commission of one half per cent., which must be paid every time the bill is discounted, or, at least, *six* times in the year. The total expense of money raised in this way could not, therefore, supposing the transaction to be always on account of the same individual, be estimated at less than eight per cent. per annum; and the payment of so high a rate of interest on borrowed capital, in a country where the ordinary rate of mercantile profit is only supposed to average from *six* to *ten* per cent., could not fail to be generally productive of ruin to the borrower. It seldom happens, however, that in transactions carried on by means of fictitious bills, the whole charge for commission falls on one individual. Loans obtained in this way are almost always on account of two or more persons. Thus, at one time a fictitious bill may be drawn by A of London on B of Glasgow; and, in this case, the Glasgow merchant will, before the bill becomes due, draw upon his London correspondent for the proceeds of the bill, including interest and commission. At another time, however, the transaction will be on account of B of Glasgow, who will then have to pay commission to his friend in London; so that each party may, on the whole, as Mr. Thornton has observed, gain about as much as he pays in the shape of commission.

It is often extremely difficult to distinguish between a fictitious bill and one which has arisen out of a real mercantile transaction. Neither does it seem to be of any very material importance. The credit of the persons whose names are attached to the bills offered for discount, is the only real criterion by which either a private merchant or a banker can judge whether he ought to negotiate them. The circumstance of a merchant offering considerable quantities of accommodation paper for discount, ought, unquestionably, if discovered, to excite suspicions as to his credit. But unless in so far as the drawing of fictitious bills may be held to be indicative of overtrading, or of a deficiency of capital to carry on the business in which the party is engaged, there does not appear to be any good reason for refusing to discount them.

These few observations will, perhaps, suffice to explain the manner in which transactions between different parts of the same country are settled by means of bills of exchange. They are, in general, extremely simple. The uniform value of the currency of a particular country renders all comparison between the value of money at the place where the bill is drawn and negotiated with its value where it is to be paid, unnecessary; while the constant intercourse maintained amongst the different commercial cities of the same kingdom, by preventing those derangements to which the intercourse between distant and independent countries is always subject, prevents those sudden fluctuations which so frequently occur in the market price of foreign bills of exchange. We shall, therefore, leave this part of our subject, and proceed to investigate the circumstances which influence the course of exchange between different and independent countries.

CHAPTER II.

Foreign Exchange.

The price of foreign bills of exchange depends entirely on two circumstances: *first*, on the value of the currency at the place where they are made payable, compared with the value of the currency at the place where they are drawn; and, *secondly*, on the relation which the supply of bills in the market bears to the demand.

If the real and nominal value of the currencies of the different nations having an intercourse together remained invariable, such fluctuations in the price of bills of exchange as arise from the first of these circumstances would be altogether unknown. But as the comparative value of the pound sterling, dollar, franc, guilder, florin, &c. is subject to perpetual variation, the price of bills of exchange must vary accordingly. Such variations, however, as proceed from this cause, affect merely their *nominal*, or rather numerical value. It is those only which arise from variations in the supply and demand for bills, or, which is the same thing, in the payments a country has to make compared with those it has to receive, that can be considered as *real;* and hence the distinctions of *nominal*, *real*, and *computed* exchange.

The *first* depends on alterations in the value of the currencies compared together; the *second* depends on the supply of bills in the market compared with the demand; and the *third* or *computed* exchange depends on the combined effects of the other two. For the sake of perspicuity we shall treat of these separately. Supposing every country to be in possession of its proper supply of bullion, the exchange may be said to be *nominally* affected by the amount of the difference between the market and mint price of bullion, and to be *really* affected by any deviation from par exceeding or falling short of that difference.

SEC. I.—NOMINAL EXCHANGE.

Bullion being everywhere recognized as the standard currency of the commercial world, the comparative value of the currencies of particular countries must depend, 1*st*, on the value of bullion in those countries; and, 2*dly*, on the *quantity* of bullion contained in their coins, or on the quantity of bullion for which their paper money, or other circulating media, will exchange.

Circumstances which regulate the Value of Bullion in Different Countries.

I. The real price of commodities being always proportioned, not merely to the cost of their production, but also to the cost of their conveyance from where they have been produced to where they are to be made use of, it follows, that if the trade in the precious metals were perfectly free, and if the commodities produced in different countries were nearly all equally well fitted for exportation, the value of bullion in different countries would be chiefly regulated by their respective distances from the mines. Thus, on the supposition that neither England nor Poland had any other commodities except corn to exchange with the South Americans for bullion, it is evident that the precious metals would possess a greater value in Poland than in England, because of the greater expense of sending so bulky a commodity as corn the more distant voyage, and because of the greater expense of conveying the gold to Poland. If Poland, however, had succeeded in carrying her manufactures to a higher pitch of improvement than England, her merchants might be able, notwithstanding the disadvantage of distance, by exporting commodities possessed of great value in small bulk, and on which the expense of freight would be comparatively trifling, to sell bullion on cheaper terms than those of England. But if, as is actually the case, the advantages of skill and machinery were possessed by England, another reason would be added to that derived from her less distance from the mines, why gold and silver should be less valuable in England than in Poland, and why the money price of commodities should be higher in the former. (Ricardo, *Principles of Political Economy*, &c. 1st ed. p. 175.)

Hence, after nations have attained to different degrees of excellence in manufacturing industry, the value of bullion in different countries no longer depends entirely on their distance from the mines. But, whatever variations a different progress in the arts may occasion in the value of bullion in different countries, it is certain that it must always be less valuable in those into which it is imported, than in those where it is produced. Bullion, like every other commodity, *is exported to find, not to destroy, its level.* And unless its value in Europe exceeded its value in America by a sum sufficient to cover the expenses attending its importation, and to yield the ordinary rate of profit to the importer, we should not, although the mines of Mexico and Peru were infinitely more productive, import from them a single ounce of bullion. It is obviously incorrect, therefore, to lay down as a general proposition, "that the par of exchange between two countries is that sum of the currency of either of the two, which, in point of intrinsic worth, is precisely equal to a given sum of the other, *that is, contains precisely an equal weight of gold and silver of the same fineness.*" (*Bullion Report*, p. 22, 8vo. ed.) For a given quantity of gold and silver is not always, as is here assumed, of the same intrinsic value in different countries. It may not, indeed, differ very materially among nations in the immediate vicinity of each other, and which are all destitute of mines. But although, to use a familiar illustration, the value of sugar approaches nearly to a level in the great trading cities of Europe, it cannot surely be maintained that its value in the West Indies is the same with its value in Bordeaux or Liverpool, or that the exchange would be really at par, if a bill, which cost a hundred hogsheads of sugar in London, only brought a hundred in Jamaica. Now, this is precisely the case with bullion. Though the value of gold and silver, as compared with corn, labor, &c. may, and indeed must, vary very considerably among the different European nations, these variations are only the necessary result of their different progress in industry, and of the different quality of their cultivated lands, &c. Such differences of price are in the natural order of things; and bullion has only found its proper level when a quantity has been introduced into those countries which excel in manufactures, sufficient to raise the price of their corn and labor. These variations have, therefore, no effect on the exchange. An ounce of bullion in one country, notwithstanding this difference of price, will, because of the facility of intercourse, be very near equivalent to an ounce of bullion in another; and, supposing the trade in the precious metals to be perfectly free, the exchange will be at true par when bills are negotiated on this footing. But when we compare the values of the precious metals in distant countries, and especially in those where they are produced, with those into which they are imported, it is obvious they must differ considerably. Gold and silver, like iron, coal, &c., are necessarily cheaper in countries possessed of extraordinarily productive mines, than in those possessed only of mines of a secondary degree of fertility, or when they have to be entirely imported from abroad. And the exchange between such places is not at true par, unless adequate allowance be made for this difference of value. Thus, if, because of the expense of carriage, the value of bullion in Great Britain is five per cent. greater than in Rio Janeiro, a hundred ounces of pure gold in Rio Janeiro would not be worth a hundred ounces of pure gold in London, but five per cent. less; and the exchange would be at true par when bills for a hundred and five ounces of standard bullion payable in Rio Janeiro, sold in London for a hundred ounces.

The differences in the value of the precious metals in different countries have not been confined to those depending on their respective distances from the mines, or on their different progress in the arts. The opinion formerly so very prevalent, that gold and silver were the only articles that constituted real wealth, induced almost every commercial nation to fetter and restrict their exportation, and to adopt a variety of measures intended to facilitate their importation. But these regulations, even when most rigorously enforced, have been singularly ineffectual; the great value and small bulk of the precious metals rendering it not only extremely advantageous, but also comparatively easy, clandestinely to export them, whenever their relative value declined.

"When," says Dr. Smith, "the quantity of gold and silver imported into any country exceeds the effectual demand, no vigilance of government can prevent their exportation. All the sanguinary laws of Spain and Portugal are not able to keep their gold and silver at home. The continual importations from Peru and Brazil exceed the effectual demand of those countries, and sink the price of these metals *below* their price in the neighboring countries. If, on the contrary, in any particular country their quantity fell short of the effectual demand, so as to raise their price *above* that of the neighboring countries, the government would have no occasion to take any pains to import them. If it were even to take the pains to prevent their importation, it would not be able to effect it. Those metals, when the Spartans had got wherewithal to purchase them, broke through all the barriers which the laws of Lycurgus opposed to their entrance into Lacedæmon. All the sanguinary laws of the customs are not able to prevent the importation of teas of the Dutch and Gottenburg East India Companies, because somewhat cheaper than those of the British Company. A pound of tea, however, is about a hundred times the bulk of one of the highest prices, 16s., that is commonly paid for it in silver, and more than two thousand times the bulk of the same price in gold, and is consequently just so many times more difficult to smuggle." (*Wealth of Nations*, vol. ii. p. 149.)

But, however ineffectual as a means of entirely preventing the egress of the precious metals, the restrictions on their exportation have nevertheless contributed to occasion some slight variations in their value in different countries. The risk incurred by the clandestine exporters of bullion from Spain is supposed to be equivalent to about two per cent.; or, which is the same thing, it is supposed that the restrictions maintain such an excess of gold and silver in that country as to sink their value two per cent. below their value in countries having a free trade in bullion. In calculating the true par of exchange between Spain and other countries, this circumstance must be taken into account. For, to whatever extent the value of bullion in one country may be reduced below its value in those with which it maintains an intercourse, the nominal exchange must necessarily be unfavorable to that extent.

All restraints on the exportation of the precious metals were abolished in Great Britain in 1819. Their effect for many years previous could not be estimated at above one fourth per cent.

It consequently results, that whatever occasions a rise or fall in the value of the precious metals in a particular country, must proportionally affect its nominal exchange with other countries. If more coin, or convertible paper, circulated in Great Britain, compared with the business it has to perform, than what circulates in other countries, its relative value would, in consequence, be diminished. Foreign bills would sell for a premium, the amount of which would be precisely equal to the excess of the value of the precious metals in the foreign market, caused by their redundancy in the home market; and, on the other hand, in the event of the currency becoming relatively deficient, its value would be proportionally increased; bills drawn on foreign countries would sell at a discount, the amount of which would measure the excess of the value of the currency of this over that of other countries.

Manner of Estimating the Quantity of Bullion contained in the Coins of Different Countries.

II. In estimating the quantity of bullion contained in the currencies of different countries, a particular coin of one country, such as the British pound sterling, is selected as an *integer* or standard of comparison, and the proportion between it and the coins of other countries, supposing them to be of their *mint standard weight and fineness*, is ascertained by experiment. A par of exchange is thus established, or rather it is ascertained that a certain amount of the standard currency of a particular country contains precisely as much gold or silver of the same fineness, as is contained in the coin or integer with which it has been compared. This relation, or par as it is technically termed, is considered invariable; and allowance is made for subsequent variations in the quantities and purity of the bullion contained in the currencies of countries trading together, by rating the exchange at so much above or below par. In mercantile language, that country, by a comparison with one or other of whose coins the par of exchange has been established, is said to give the *certain* for the *uncertain*, and conversely. Thus, in the exchange between London and Paris, London and Hamburg, &c., London gives the *certain*, or the pound sterling, for an *uncertain* or variable number of francs, florins, &c. Hence, the higher the exchange between any two countries, the more is it in favor of that which gives the *certain*, and the lower, the more is it in favor of that which gives the *uncertain.*

Effects of Variations in the Value of Metallic Currency on the Exchange.

On the supposition, which is very near the truth, that twenty-five francs contain the same quantity of standard bullion as a pound sterling (twenty-five francs, twenty centimes, is the exact par,) and supposing also that the value of bullion is the same in both countries, the exchange between London and Paris will be at par, when a bill drawn by a merchant in the one on his correspondent in the other sells at that rate; that is, when a bill of exchange for 2500 or 25,000 francs payable in Paris, sells in London for £100 or £1000, and *vice versa.* It is but seldom, however, that the coins of any country correspond exactly with their mint standard; unless, when newly issued, the are all either more or less worn; and whenever this is the case, an allowance corresponding to the difference between the actual value of the coins and their mint value must be made in estimating "*the sum of the* *existing currency of either of two countries which contains precisely the same quantity of bullion as is contained in a given sum of the other.*" Thus, if the one pound sterling were so worn, clipped, rubbed, &c., as not to contain so much bullion as twenty-five francs, but ten per cent. less, the exchange between London and Paris would be at real par when it was nominally ten per cent. against London. It is necessary to observe, that it is here supposed that the clipped or degraded money exists in such a degree of abundance as only to pass current at its bullion value. If the quantity of clipped money were *sufficiently limited*, it might, notwithstanding the diminution of weight, pass current at its mint value; and then the par would have to be estimated, not by its relative weight to foreign money, but by the mint price of bullion. This is a principle which must be constantly kept in view. And if, on the other hand, the pound sterling was equal to its mint standard, while the franc was ten per cent. less, the exchange between London and Paris would be at real par when it was nominally ten per cent. aginst Paris and in favor of London. If the currency of both countries were *equally* reduced below the standard of their respective mints, then it is obvious there would be no variation in the real par. But whenever the currency of countries trading together is depreciated in an *unequal* degree, the exchange is nominally in favor of that country whose currency is least depreciated, and nominally against that whose currency is most depreciated.

It is almost unnecessary to refer to the history of exchange to show the practical operation of this principle; and we shall content ourselves with selecting the following, from an infinite number of equally conclusive instances.

In a pamphlet printed in 1604, but written in 1564, it is mentioned, that when Henry VIII. degraded the several species of coin then current, there began to be "*some disorder*" in the price of all wares and commodities, which Edward VI. attempted to remedy by diminishing still farther the quantity of pure silver contained in each coin; the consequence was, that *the English pound sterling, which heretofore exchanged abroad for twenty-six Flemish schillings, became worth no more than thirteen Flemish schillings*, the price of English commodities being at the same time proportionally increased. (Mr. John Smith's *Memoirs of Wool*, vol. i. p. 105, 8vo. ed.)

Previously to the great recoinage in the reign of William III., silver being at that time a legal tender, the *nominal* exchange between England and Holland, calculated according to the standard of their respective mints, was twenty-five per cent. against England; but inasmuch as English silver coins were then, owing to rubbing and clipping, depreciated more than twenty-five per cent. below their mint value, the real exchange may notwithstanding have been in favor of England. The circumstance of the *nominal* exchange having become favorable to this country as soon as the new coin was issued, renders this conjecture extremely probable. (*Wealth of Nations*, vol. ii. p. 215.)

Before the reformation of our gold coin in 1774, the guinea contained so much less than its standard weight as to be degraded from two to three per cent. when compared with the current French coins, and the exchange between England and France was computed to be two or three per cent. *against* this country. Upon the reformation of the gold coin the exchange rose to par. The Turkish government, in the course of the last forty years, has made three great alterations in the value of its coin. Before these frauds were committed, the Turkish *piastres* contained nearly as much silver as the English *half-crown;* and, in exchange, the par was estimated at *eight* piastres to the pound sterling. The consequence of these repeated adulterations has been, the reduction of the silver in the piastre to one half, and a fall in the exchange of 100 per cent.; bills on London having been bought in Turkey, in 1803, at the rate of sixteen piastres for every pound sterling. Il est impossible d'indiquer exactement le *pair* des monnoies Turques. On voit des pieces du même nom, et frappées la même année, qui different de 100 pour cent. dans leur valeur intrinsèque. (Storch, *Cours d'Economie Politique*, tom. vi. p. 336.) Now, although it is not absolutely certain that these fluctuations in the *nominal* exchange were entirely owing to the alterations in the value of the coin, because the real exchange, or that which depends on the abundance or scarcity of bills in the market, might not be constant; yet the exact correspondence of the fall of exchange with the acknowledged degradation of the coin, renders it more than probable that it proceeded almost entirely from that degradation. (*Observations on the Principles which regulate the Course of Exchange*, by Willam Blake, Esq. p. 41.)

Effects of Variations in the Relative Value of Gold and Silver on the Exchange.

When one country uses gold as the standard of its currency, and another silver, the par of exchange between them is affected by every variation in the relative value of these metals. When gold rises in value compared with silver, the exchange becomes nominally favorable to that country which has the gold standard, and *vice versa.* And hence, in estimating the state of the exchange among countries using different standards, it is always necessary to advert to the comparative values of the metals selected for standards.

"For example," to use the words of Mr. Mushet, "if 34 schillings 11 grotes and $\frac{1}{4}$ of Hamburg currency be equal in value to a pound sterling, or $\frac{20}{21}$ of a guinea, when silver is at 5s. 2d. per oz., they can no longer be so when silver falls to 5s. 1d. or 5s. an oz. or when it rises to 5s. 3d. or 5s. 4d.; because a pound sterling in gold being then worth more or less silver, is also worth more or less Hamburg currency.

"To find the real par, therefore, we must ascertain what was the relative value of gold and silver when the par was fixed at 34s. 11$\frac{1}{4}$g. Hamburg currency, and what is their relative value at the time we wish to calculate it.

"For example, if the price of standard gold was £3 17s. 10$\frac{1}{2}$d. per oz., and silver 5s. 2d., an ounce of gold would then be worth 15.07 ounces of silver, and twenty of our standard shillings would then contain as much pure silver as 34s. 11 grotes and $\frac{1}{4}$ Hamburg currency. But if the ounce of gold were £3 17s. 10$\frac{1}{2}$d., and silver 5s., (which it was on 2d January, 1798,) the ounce of gold would then be worth 15.57 ounces of silver. If £1 sterling at par, therefore, be worth 15.07 ounces of silver, then at 15.57

it would be at three per cent. premium; and three per cent. premium on 34s. 11¼d. is 1 schilling 1 grote and $\frac{9}{10}$, so that the par, when gold is to silver as 15.57 to 1, will be 36 schillings 1 grote and $\frac{1}{10}$. The above calculation will be more easily made by stating as '15.07 : 34-11¼ : : 15.57 : 36-1$\frac{1}{10}$.'" (*An Inquiry into the Effects produced on the National Currency by the Bank Restriction Bill*, &c., by Robert Mushet, Esq.; second edition, p. 94.)

Effects of Seignorage on the Exchange.

As it is by their intrinsic worth as bullion that the values of the coins of particular countries are estimated in exchange, two coins of equal weight and purity are reckoned equivalent to each other, although the one should have been coined at the expense of the State, and the other charged with a *seignorage*, or duty on its coinage. Coins on which a *seignorage* is charged may, if not issued in excess, pass current in the country where they are coined, at a value so much higher than their value in bullion; but they will not pass at any higher value in other countries.

Previously to 1817, no seignorage had for a very long period been deducted from either the gold or silver coins of Great Britian; but in the great recoinage of that year the value of silver was raised from 5s. 2d. to 5s. 6d. an ounce, or nearly in the proportion of 6½ per cent. The gold coins, however, are still coined free of expense, and no variation has been made in their standard. The British mint proportion of silver to gold is now as $14\frac{287}{1000}$ to 1; that is, one ounce of standard gold bullion is rendered exchangeable for $14\frac{287}{1000}$ ounces of standard silver. In France the mint proportion of the two metals is as 15½ to 1; a seignorage being exacted to nearly ½d. per cent. on gold, and 1½ per cent. on silver.

Effect of Variations in the Value of Paper Currency on the Exchange.

But the principal source of fluctuations in the nominal price of bills of exchange is to be found in the varying value of the *paper* currency of commercial countries. The disorders which universally arose in rude ages from the diminution of the quantity of standard bullion contained in the coins of different countries are now reproduced in another form, and often to a still more ruinous extent, in the depreciation of their paper currency.

The impossibility of retaining a comparatively large quantity of coin or bullion, or of convertible paper, in a particular country, effectually limited the issues of the Bank of England previously to the Restriction Act of 1797, and sustained the value of our currency on a par with that of other countries. When the bank issued less paper than was necessary for this purpose, the value of the currency becoming relatively great, it became profitable to import bullion, and to send it to the mint to be coined. And, on the other hand, when the bank issued too much paper, and thereby depressed its value relatively to gold, it became profitable to demand payment of its notes, and thereafter to export the specie thus obtained either in the shape of coin or as bullion. In this way the bank was compelled to limit its issues when excessive, and, consequently, to put a stop to the demand for gold, by rendering its paper of equal value.

Had the Bank of England, subsequently to the restriction, issued only such quantities of paper as were required to sustain its value on a par with the value of gold, the act of 1797 would not have occasioned any real difference in our monetary system. But, after the bank had been released from the obligation to pay its notes, it was not to be expected that it should be very careful about limiting their number. The restriction *enabled* the directors to exchange bits of engraved paper, worth perhaps not more than five shillings a quire, for as many, or the value of as many, hundreds of thousands of pounds. And under such circumstances, the only thing to be wondered at is, not that paper money became depreciated, but that its value was not more degraded,—that a still greater quantity of bank-notes were not forced into circulation.

A country with an inconvertible paper currency, of which an undue quantity has been issued, is in the same situation as a country would be in, were it possessed of a redundant gold and silver currency, and subjected to laws prohibiting the melting or exportation of the coin, that were carried into full effect. Such a currency is necessarily confined to the country where it is issued; it cannot, when too abundant, diffuse itself generally amongst others. The level of circulation is destroyed; and the value of the currency becoming less than the value of the currency of other countries, the nominal exchange is rendered proportionally unfavorable.

Supposing that nothing but silver coin of the standard weight and purity (twenty-five francs of which would exchange for a pound sterling of the British mint standard) circulates at Paris, and that the circulating medium of London is composed entirely of paper only worth half its nominal value, or which is depreciated 100 per cent.; in that case the exchange between London and Paris would be at *real* par, when it was nominally cent. per cent. against London. Double the amount of such depreciated London currency would be required to purchase a bill on Paris where the currency retained its value, while half the former amount of Parisian currency would now suffice to purchase a bill payable in London. A depreciation of this sort would have exactly the same effects as an equal reduction in the value of metallic money. While paper money, depreciated 100 per cent. constituted our legal currency, a pound note, instead of being worth 25 francs, would only be worth 12½; and the nominal or numerical value of the bills of exchange negotiated between this country and France would be regulated accordingly; that is, a bill of exchange for £100 or £1000 payable in London, would sell in Paris for 1250 or 12,500 francs, and conversely. If, while the currency of London remained steady at 100 per cent. below its mint value, Parisian currency should, either from the coins becoming deficient in weight, or because of an inordinate issue of paper money, become also depreciated, the *nominal* exchange would be rendered proportionally less unfavorable to London. On the hypothesis that the currency of Paris is depreciated 50 and that of London 100 per cent. the *nominal* exchange would be 50 per cent. against the latter, and so on. Thus it appears that the *nominal* exchange between any two or more places will always be adjusted according to the value of their currencies; being most favorable to that country whose currency approaches nearest its mint standard, and most unfavorable to that whose currency is most degraded.

Exchange between Great Britain and Ireland subsequent to 1797.

The state of exchange between Great Britain and Ireland, subsequently to the restriction on cash payments in 1797, furnishes a striking proof of the effects which inordinate issues of paper have in depressing the exchange.

The nominal value of the Irish shilling having been raised from 12d. to 13d., or, which is the same thing, £108. 6s. 8d. Irish money having been rendered only equal to £100 British money, it followed, that when the exchange between Great Britain and Ireland was at $8\frac{1}{3}$ per cent. against the latter, it was said to be at par. In the *eight* years previous to 1797, when the paper currency both of England and Ireland was convertible into gold, the exchange between London and Dublin fluctuated from $7\frac{1}{2}$ to 9 per cent.; that is, from $\frac{5}{6}$ per cent. in favor of Dublin, to $\frac{2}{3}$ per cent. against it. In September, 1797, it was so low as 6 per cent., or $2\frac{1}{3}$ per cent. in favor of Dublin. The amount of Bank of Ireland notes in circulation in January, 1797, was only £621,917; but in April, 1801, they had increased to £2,286,471; and the exchange was then at 14 per cent., or $5\frac{2}{3}$ per cent. *against* Dublin. In 1803, the Bank of Ireland notes in circulation averaged £2,707,956, and in October of that year the exchange rose to 17 per cent.; that is, to $8\frac{2}{3}$ per cent. against Dublin!

The fact of the exchange between London and Dublin having fluctuated so very little from real par, for eight years previous to the restriction, shows that the circulating medium of Great Britian and Ireland had then been adjusted nearly according to the wants of the two countries. But, in these circumstances, it was evidently impossible, supposing the value of British currency to remain stationary, that the quantity of Irish bank paper could be nearly *quintupled* in the short space of six years, without rendering the currency of Ireland comparatively redundant, and sinking its value below that of England. Had the Bank of England increased its notes nearly in the same ratio as the Bank of Ireland, then, as the currency of both countries would have been *equally depreciated*, the exchange between London and Dublin would have continued at par. But while the notes of the Bank of Ireland were increased from £621,917 to £2,707,956, or in the proportion of 1 to 4·3, those of the Bank of England were only increased from £9,181,843 (their number on the 7th January, 1797,) to £16,505,272, or in the proportion of 1 to 1·8. If the Bank of England had not made this addition to its issues, the exchange would obviously have been still more unfavorable to Dublin.

In the debates on the Bullion Report, it was contended that the increase of Bank of Ireland paper could not be the cause of the exchange becoming unfavorable to Dublin, inasmuch as it had again become favorable to the latter, after the issues of the Bank of Ireland had been still further increased. Nothing, however, can be more inconclusive than such reasoning. To give it the least weight, it must be shown that the currency of Great Britain had in the interim retained its value, or that it had not been depreciated to the same extent as that of Ireland. Unless this be established, the circumstance that the exchange between London and Dublin came to par, while as many notes of the Bank of Ireland circulated as in the period of its greatest depression, will not authorize us to conclude that the increase of Irish bank paper was not the cause of the fall in the exchange previously to 1804. For it is obvious that the depreciation of Irish bank paper might be going on subsequently to 1804; and yet, supposing English bank paper had been depreciated still more rapidly, the exchange would become more favorable to Dublin. This is merely supposing the circumstances which took place in the first six years of the restriction to be reversed in the second six. Let us examine how the fact stands.

We have seen that, in 1803, when the exchange was nominally ten per cent. against Dublin, the issues of the Bank of England amounted to £16,506,272, and those of the Bank of Ireland to £2,707,956. And, by referring to the account of the issues of the Bank of Ireland from 1797 to 1819, it will be seen that, in 1805, 1806, 1807, and 1808, they were rather *diminished;* and that, in 1810, they only amounted to £3,251,750, being an increase of not more than £543,794 in the space of seven years, or at the rate of two and six-sevenths per cent. per annum; but in the same period (from 1803 to 1810) the issues of the Bank of England had increased from £16,505,272 to £22,541,523, or at the rate of five per cent. per annum, But this is not all. According to Mr. Wakefield (*Account of Ireland,* vol. ii. p. 171), who has left no subject untouched which could throw light on the state of Ireland, there were *fifty* registered bankers in that country in 1804, and only *thirty-three* in 1810, of which fourteen were new houses, thirty-one of the old establishments having disappeared; "and I believe," says Mr. Wakefield, "*for the most part failed.*" This extraordinary diminution of the country paper of Ireland, for the reduction of the issues was at least proportional to the reduction in the number of banks, must have greatly raised its value, and would have countervailed a very great increase in the issues of the national bank. Now the very reverse of all this took place in Britain. In 1800 there were 386 country banks in this country; and in 1810, this number, instead of being diminished, as in Ireland, had increased to 721, having at least three times the number of notes in circulation in the latter as in the former period!

It appears, therefore, that when, in the period from 1796 to 1804, the quantity of paper in circulation in Ireland was increased, and consequently its value depressed, faster than in England, the exchange between London and Dublin became proportionally unfavorable to the latter; and, on the other hand, it appears, that when, in the six years subsequent to 1804, the paper currency of England was increased more rapidly than the paper currency of Ireland, its relative value was diminished and the *nominal* exchange became more favorable to Dublin.

This is sufficiently conclusive; but there is still more decisive evidence to show that the unfavorable exchange of Dublin upon London in 1802, 1803, 1804, &c., was entirely owing to the comparative redundancy or depreciation of Irish bank paper. The linen manufacturers, weavers, &c., and the majority of the other inhabitants of a few counties in the north of Ireland, being, at the period of the restriction, strongly disaffected towards government, almost unanimously refused to receive bank notes, either in payment of commodities or as wages. The landlords, having also stipulated for the payment of their rents in specie, the consequence was, that a gold currency was maintained in the north of Ireland long after it had been entirely banished from the southern part of the island. If, therefore, the depressed state of the exchange between London and Dublin had been occasioned, as was contended by the advocates of the restriction, by an unfavorable balance of trade between Ireland and Great Britain, or by remittances from the former on account of absentee landlords, &c., it would have been equally depressed between London and the commercial towns in the northern counties. But, so far from this being the case, in December, 1803, when the exchange of Dublin on London was at sixteen and one-fourth per cent., that of Belfast on London was at five and one-fourth: or, in other words, at the same time that the exchange between Dublin and London was about eight per cent. against Ireland, the exchange between Belfast, *which had a gold currency*, and London, was about three per cent. in its *favor*. Nor is this all. There was not only a difference of eleven per cent. in the rate of exchange between Dublin and London, and Belfast and London, but the *inland* exchange between Dublin and Belfast was, at the same time, about ten per cent. in favor of the latter; that is, bills drawn in Dublin, and payable in the gold currency of Belfast, brought a premium of ten per cent.; while bills drawn in Belfast, and made payable in the paper currency of Dublin, sold at ten per cent. discount. Further information on this interesting subject may be obtained from the very able *Report of the Committee of the House of Commons*, appointed in 1804 to inquire into the state of the circulating paper in Ireland, its specie, &c., and the state of the exchange between it and Great Britain; in Sir Henry Parnell's excellent pamphlet on the same subject; and in the pamphlets of Lord King, Mr. Huskisson, &c.

It is unnecessary to refer to the history of the French *assignats*, or of the paper currency of the continental powers generally, and of the United States, to corroborate what has been advanced. Such of our readers as wish for detailed information as to these points may have recourse to the fourth volume of the *Cours d'Economie Politique* of M. Storch, where they will find an able and instructive account of the effects produced by the issues of paper on the price of bullion and the exchange, in almost every country of Europe. They are, in every case, precisely similar to those now stated.

It only remains to determine the effects of fluctuations in the *nominal* exchange, on the export and import trade of the country.

Inquiry into the Effects of Fluctuations in the Nominal Exchange on Export and Import Trade.

When the exchange is at par, the operations of the merchant are regulated entirely by the difference between foreign prices and home prices. He imports those commodities which can be sold at home for so much more than their price abroad as will indemnify him for the expense of freight, insurance, &c., and yield an adequate remuneration for his trouble, and for the capital employed in their importation; and he exports those whose price abroad is sufficient to cover all expenses, and to afford a similar profit. But when the *nominal* exchange becomes unfavorable to a particular country, the premium which its merchants receive on the sale of foreign bills has been supposed capable of enabling them to export with profit in cases where the difference between the price of the exported commodities at home and abroad might not be such as would have permitted their exportation had the exchange been at par. Thus, if the *nominal* exchange were ten per cent. against this country, a merchant who had consigned goods to his agent abroad would receive a premium of ten per cent. on the sale of the bill; and if we suppose freight, insurance, mercantile profit, &c., to amount to six or seven per cent., it would at first sight appear as if our merchants might, in such circumstances, export commodities although their price at home were three or four per cent. higher than in other countries. If, on the other hand, the *nominal* exchange were in our favor, or if bills *on* this country sold at a premium, it would appear as if foreigners would then be able to consign goods to our merchants, or our merchants to order goods from abroad, when the difference of real prices was not such as would of itself have led to an importation.

But a very little consideration will convince us that fluctuations in the *nominal* exchange can have no such effect. That fall in the value of the currency which renders the exchange unfavorable, and causes foreign bills to sell at a premium, must *equally increase* the price of all commodities. And hence, whatever might be the amount of the premium which the exporter gained by the sale of the bill drawn on his correspondent abroad, it would do no more than indemnify him for the enhanced price of the goods exported. Mercantile operations are in such cases conducted precisely as they would be were the exchange really at par; that is, by a comparison of the real prices of commodities at home and abroad, meaning, by real prices, the prices at which they would be sold, provided there were no depreciation of the currency. If those prices be such as to admit of exportation or importation with a profit, the circumstance of the nominal exchange being favorable or unfavorable will make no difference whatever on the transaction.

"Suppose," says Mr. Blake, who has very successfully illustrated this part of the doctrine of exchange, "the currencies of Hamburg and London being in their due proportions, and therefore the *nominal* exchange at par, that sugar, which from its abundance in London sold at £50 per hogshead, from its scarcity at Hamburg would sell at £100. The merchant in this case would immediately export. Upon the sale of his sugar he would draw a bill upon his correspondent abroad for £100, which he could at once convert into cash by selling it in the bill market at home, deriving from this transaction a profit of £50, under deduction of the expenses of freight, insurance, commission, &c. Now, suppose no alteration in the scarcity or abundance of sugar in London and Hamburg, and that the same transaction were to take place after the currency in England had been so much increased that the prices were doubled, and, consequently, the *nominal* exchange 100 per cent. in favor of Hamburg, the hogshead of sugar would then cost £100, leaving apparently no profit whatever to the exporter. He would, however, as before, draw his bill on his correspondent for £100; and, as foreign bills would bear a premium of 100 per cent., he would sell this bill in the English market for £200, and thus derive a profit from the transaction of £100 depreciated, or £50 estimated in undepreciated currency, deducting, as in the former instance, the expense of freight, insurance, commission, &c.

"The case would be precisely similar, *mutatis mutandis*, with the importing merchant. The unfavorable *nominal* exchange would appear to occasion a loss amounting to the premium on the foreign bill which he must give in order to pay his correspondent abroad. But if the difference of *real* prices in the home and foreign markets were such as to admit of a profit upon the importation of produce, the merchant would continue to import, notwithstanding the premium; for that would be repaid to him in the advanced *nominal* price at which the imported produce would be sold in the home market.

"Suppose, for instance, the currencies of Hamburg and London being in their due proportions, and, therefore, the *nominal* exchange at par, that linen, which can be bought at Hamburg for £50, will sell here at £100. The importer immediately orders his correspondent abroad to send the linen, for the payment of which he purchases at £50 a foreign bill in the English market, and on the sale of the consignment for £100, he will derive a profit amounting to the difference between £50 and the expense attending the import.

"Now, suppose the same transaction to take place without any alteration in the scarcity or abundance of linen at Hamburg and London, but that the currency of England has been so augmented as to be depreciated to half its value; the *nominal* exchange will then be 100 per cent. against England, and the importer will not be able to purchase a £50 foreign bill for less than £100. But as the prices of commodities here will have risen in the same proportion as the money has been depreciated, he will sell his linen to the English consumer for £200, and will, as before, derive a profit amounting to the difference between £100 depreciated, or £50 estimated in undepreciated money, and the expenses attending the import.

"The same instances might be put in the case of a favorable exchange; and it would be seen in the same manner that *nominal* prices and the *nominal* exchange being alike dependent on the depreciation of currency, whatever apparent advantage might be derived from the former would be counterbalanced by a loss on the latter, and *vice versa*." (*Observations*, &c. p. 48.)

It appears, therefore, that fluctuations in the *nominal* exchange have no effect on export or import trade. A fall in the exchange obliges the country to which it is unfavorable to expend a larger *nominal* sum in discharging a foreign debt than would otherwise be necessary; but it does not oblige it to expend a greater *real* value. The depression of the *nominal* exchange can neither exceed nor fall short of the comparative depreciation of the currency. If the depreciation of British currency amounted to 10 or 100 per cent. the *nominal* exchange would be 10 or 100 per cent. against us; and we should be compelled, in all our transactions with foreigners, to give them 22s. or 40s. for what might otherwise have been procured for £1. But as neither 22s. nor 40s. of paper, depreciated to the extent of 10 or 100 per cent., would be more valuable than £1 of undepreciated paper, payment of a foreign debt might, it is evident, be as easily made in the one currency as in the other; and mercantile transactions would, in such circumstances, be conducted exactly as they would have been, had the currency been undepreciated, and the *nominal* exchange at par.

It is necessary, however, before dismissing this part of our subject, to examine the effects of fluctuations in the *nominal* exchange on the importation and exportation of *bullion*. In certain cases they form an exception to the general principle we have been endeavoring to elucidate.

Effects of Fluctuations in Nominal Exchange on the Trade in Bullion.

If the *nominal* exchange were unfavorable to a country which had entirely discarded the precious metals from its circulation, Mr. Blake's opinion that the fall of the exchange has no effect on the export and import of bullion, more than of any other commodity, would be perfectly well founded. In this case the price of all sorts of commodities, and of bullion among the rest, would be increased precisely according to the depreciation of the currency; and the merchants who should, under such circumstances, attempt to export bullion, would find that its increased price in the home market would be exactly equivalent to whatever premium they might gain by the sale of the bills drawn on their agents abroad for its price. But when the *nominal* exchange becomes unfavorable to a country whose currency consists entirely of the precious metals, or partly of them and partly of paper, a different effect is produced.

In this case the depreciation necessarily adds to the stock of bullion in the country. For as soon as the currency has been depreciated to such an extent as to render the excess of the market above the mint price of bullion sufficient to cover the very trifling expenses attending the melting of the coin, and to afford some little remuneration for the trouble of the melters, they immediately set about converting it into bullion. If, indeed, it were possible to realize a greater profit by the exportation than by the fusion of the coins, they would not be converted into bullion, and, of course, its real price would continue stationary. But this is very seldom the case. The operation of melting is so extremely simple, and requires so very little apparatus, that it may, in almost every instance, be carried on at a less expense than would be necessary to export the coins. The cost attending the conveyance of gold to Paris, varies in a season of peace, from one to two per cent.; while a profit of one fourth or one half per cent. is sufficient to indemnify the melters of guineas or sovereigns. It is obvious, therefore, that of the two modes of restoring the value of the currency when it becomes depreciated, or relatively redundant, that of fusion will be generally resorted to in preference to exportation. Should the redundancy of the currency be inconsiderable, all the addition which the operations of the melters could make to the supply of bullion, would most probably be insufficient to occasion any perceptible fall in its *real* price. But, in every case in which the redundancy or depreciation of the currency is considerable, the fusion of the coined money never fails to increase the quantity of bullion beyond the effectual demand, and, consequently, to occasion a fall in its *real* price, and to render it a profitable article of export. The demand for bullion, though it must always vary with the varying wealth and riches of the community, fluctuates very little in periods of limited duration; and no considerable addition can ever be made to the stock on hand in a particular country, without sinking its value and causing its egress.

Mr. Blake contends that this exportation of bullion is the effect of the melting of the coin, and not the cause of it; and in so far he is certainly right. But we do not see how this in the least strengthens his opinion, that fluctuations in the *nominal* exchange, even in those cases in which the currency consists either wholly or partially of the precious metals, have no influence on the export and import of bullion. Surely it is impossible to deny that the fusion of the coin, of which Mr. Blake admits the exportation of bullion is a necessary consequence, is occasioned by redundancy of the currency, or by the same cause which occasions an unfavorable *nominal* exchange.

Bullion, therefore, forms an exception, and it is the only one, to the general principle that a fall in the value of the currency, or an unfavorable *nominal* exchange, has no effect on importation or exportation. But this exception does not take place, except in those cases in which the currency consists either in *whole* or in *part* of the precious metals. When the currency consists *entirely* of paper, or of any commodity other than gold or silver, its depreciation has no influence whatever on the importation of bullion.

CHAPTER III.

Real Exchange.

Having thus endeavored to trace the effects which variations in the value of the currencies of countries maintaining an intercourse together have on the exchange, we now proceed to consider how far it is influenced *by fluctuations in the supply and demand for bills.* To facilitate this inquiry, we shall exclude all consideration of changes in the value of money; or, which is the same thing, we shall suppose the currencies of the different countries having an intercourse together to be all fixed at their mint standards, and that each has its proper supply of bullion.

When two nations trade together, and each purchases from the other commodities of precisely the same value, their debts and credits will be equal, and, of course, the real exchange will be at par. The *bills* drawn by the one are, in such a case, exactly equivalent to those drawn by the other, and their respective claims may be adjusted without the transfer of bullion, or other valuable produce. But it rarely happens that the debts reciprocally due by any two countries are equal. There is almost always a balance owing on one side or other; and this balance must affect the exchange. If the debts due by London to Paris exceeded those due by Paris to London, the competition in the London market for bills on Paris would, because of the comparatively large sum which our merchants had to remit to France, be greater than the competition in Paris for bills on London; and, consequently, the *real* exchange would be in favor of Paris and against London.

Limit to Fluctuation in the Real Exchange.

The expense of the transfer of bullion from one country to another constitutes the limit within which the rise and fall of the *real* exchange between them must be confined. In this respect, as in most others, transactions between foreign countries are regulated by the very same principles which regulate those between different parts of the same country. We have already shown how the fluctuations in the *real* exchange between London and Glasgow could never exceed the expense of transmitting money between those cities. The same principle holds universally. Whatever may be the expense of transmitting bullion,—the money of the commercial world,—between London and Paris, Hamburg, New York, &c., it is impossible that the *real* exchange of the one on the other should, for any considerable period, be depressed to a greater extent. For a merchant will not pay a greater premium for a bill to discharge a debt abroad, than would suffice to cover the expense of transmitting bullion to his creditor.

Hence it appears that whatever has a tendency to obstruct or fetter the intercourse among different countries, must also tend to widen the limits within which fluctuations in the *real* exchange may extend. This enables us to account for its varying so much more in time of war than in time of peace. The amount of the bills drawn on a country engaged in hostilities is, from various causes which we shall afterwards notice, liable to be suddenly increased, though it is certain that whatever may be the amount of the bills thus thrown upon the market, the depression of the exchange cannot, for any length of time, exceed the expense of conveying bullion from the debtor to the creditor country. But during war this expense is increased ; the charges on account of freight, insurance, &c., being then necessarily augmented. It appears from the evidence annexed to the *Report of the Bullion Committee*, that the expense of conveying gold from London to Hamburg, which, prior to the war, only amounted to two or two and a half per cent., had, in the latter part of 1809, increased to about seven per cent.; showing that the limits within which fluctuations in the real exchange were confined in 1809 were about three times as great as those within which they were confined in 1793.

This principle also enables us to account for the greater steadiness of the real exchange between countries in the immediate vicinity of each other. The expense of transmitting a given quantity of bullion from London to Dublin or Paris, is much less than the expense of transmitting the same quantity from London to New York or Petersburg. And, as fluctuations in the *real* exchange can only be limited by the cost of transmitting bullion, they may consequently extend much farther between distant places than between those that are contiguous.

Inquiry into the Circumstances which give Rise to a favorable or an unfavorable Balance of Payment.

It will now be proper to investigate the circumstances which give rise to a favorable or an unfavorable balance of payments, and to appreciate their effects on the real exchange, and on the trade of the country in general. As this is one of the most important inquiries in the whole science of political economy, it will require to be discussed at some length.

The Fact that the Value of the Imports exceeds that of the Exports does not warrant the Conclusion that the Balance of Payments is unfavorable.

A very great, if not the principal, source of the errors into which practica merchants, and the majority of writers on the subject of exchange, have b e betrayed, appears to have originated in their confounding the sum which imported commodities are worth in the home market, with the sum which they cost in the foreign market. It is obviously, however, by the amount of the latter only, that the balance of payments, and consequently the *real* exchange, is influenced. A cargo of iron, for example, which cost £1000 free on board at Gottenburg, might be worth £1200 or £1300 when imported into England; but the foreign merchant would not be entitled to draw on London for more than its original cost, or £1000. It is clear, therefore, on the slightest consideration, that the circumstance of the value of the imports exceeding the value of the exports, does not authorize the conclusion that the balance of payments is unfavorable. A favorable or an unfavorable balance depends entirely on the sum due *to* foreigners for commodities imported from abroad being less or more than the sum due *by* them for the commodities they have purchased; but it has nothing to do with the prices eventually obtained for the imported or exported commodities.

The great object of the *mercantile* system of commercial policy, a system which still continues to preserve a considerable influence in this and in every other country in Europe, is, the creation of a favorable balance of payments, and consequently of a favorable *real* exchange, by facilitating exportation and restricting importation. It is foreign to the object of this article to enter into any examination of the principles of this system, except in so far as they are connected with the subject of exchange; but we hope to be able to show, in opposition to the commonly received opinions on the subject, that, under ordinary circumstances, the value of the imports must always exceed the value of the exports; and that this excess of importation has not, speaking generally, any tendency to render the *real* exchange unfavorable.

In Countries carrying on an Advantageous Commerce, the Value of the Imports must always exceed the Value of the Exports.

It is the business of the merchant to carry the various products of the different countries of the world from those places where their value is least, to those where it is greatest; or, which is the same thing, to distribute them according to the effective demand. It is clear, however, that there could be no motive to export any commodity, unless the commodity which it was designed to import in its stead was of greater value. When an English merchant orders a quantity of Polish wheat, he calculates on its selling for so much more than its price in Poland as will be sufficient to pay the expense of freight, insurance, &c.: and to yield, besides, the common and ordinary rate of profit on the capital employed in the business. If the wheat did not sell for this sum, its importation would obviously occasion a loss to the importer. No merchant ever did or ever will export, but in the view of importing a greater value in return. And so far from an excess of exports over imports being any criterion of an advantageous commerce, it is quite the reverse; and the truth is, notwithstanding all that has been said and written to the contrary, that unless the value of the imports exceeded that of the exports, foreign trade could not be carried on. Were this not the case—were the value of the exports always greater than the value of the imports, merchants would lose on every transaction with foreigners, and the trade with them would either not exist at all, or, if begun, would be speedily relinquished.

In England, the rates at which exports and imports are valued were fixed so far back as 1696. But the very great alteration that has since taken place, not in the value of money only, but in the cost of most part of the commodities produced in this and other countries, has rendered this *official* valuation, though valuable as a means of determining their quantity, of no use whatever as a criterion of the true value of the imports and exports. To obviate this defect, an account of the *real* or *declared* value of the exports is annually prepared from the declarations of the masters, and laid before parliament. There is, however, no such account of the imports; and, owing to the difficulties which high duties throw in the way, it is, perhaps, impossible to frame one with any thing like accuracy. It has also been alleged, and apparently with some foundation, that merchants have not unfrequently exaggerated the value of articles entitled to drawbacks on exportation; but the recent extension and improvement of the warehousing system, and the decrease in the number of drawbacks, must materially lessen whatever fraud or inaccuracy may have arisen from that source. Indeed, as most articles are charged with an *ad valorem* duty of 10s. per cent. on exportation, the fair presumption is, that their value will be underrated. We believe, however, that the declared value of the exports comes pretty near the truth, at least sufficiently so for all practical purposes.

But if perfectly accurate accounts could be obtained of the value of the exports and imports, there can be no manner of doubt that in ordinary years the latter would always exceed the former. The value of an exported commodity is estimated when it is shipped, *before* its value is increased by the expense incurred in transporting it to the place of its destination; but the value of the commodity imported in its stead is estimated *after* it has arrived at its destination, and, consequently, after it has been enhanced by the cost of freight, insurance, importer's profit, &c.

It is of very little importance, in so far at least as the interests of commerce are concerned, whether a nation act as the carrier of its own imports and exports, or employ others. A carrying nation appears to derive a comparatively large profit from its commercial transactions; but this excess of profit is nothing more than a fair remuneration for the capital it employs, and the risk it incurs, in transporting commodities from one country to another. Were the whole trade between this country and France carried on in British bottoms, our merchants, in addition to the value of the goods exported, would also receive the cost of their carriage to France. This, however, would not occasion any loss to that country. The French merchants must pay the freight of the commodities they import; and if the English can afford it on cheaper terms than their own countrymen, there is no good commercial reason, though there may be others of a different kind, why they should not employ them in preference.

In the United States, the value of the imports, as ascertained by the custom-house returns, always exceeds the value of the exports. And although our practical politicians have been in the habit of considering the excess of exports over imports as the only sure criterion of an advantageous commerce, "it is nevertheless true, that the real gain of the United States has been nearly in proportion as their imports have exceeded their exports." Pitkin on the *Commerce of the United States*, 2d ed. p. 280. The great excess of American imports has been in part occasioned by the Americans generally exporting their own surplus produce, and consequently receiving from foreigners, not only an equivalent for their exports, but also for the cost of conveying them to the foreign market. "In 1811," says the author just quoted, "flour sold in America for nine dollars fifty cents per barrel, and in Spain for fifteen dollars. The value of the cargo of a vessel carrying 5000 barrels of flour would, therefore, be estimated, at the period of its exportation, at 47,500 dollars; but as this flour would, because of freight, insurance, exporter's profits, &c., sell in Spain for 75,000 dollars, the American merchant would be entitled to draw on his agent in Spain for 27,500 dollars more than the flour cost in America, or than the sum for which he could have drawn had the flour been exported on account of a Spanish merchant. But the transaction would not end here: the 75,000 dollars would be vested in some species of Spanish or other European goods fit for the American market; and the freight, insurance, &c., on account of the return cargo would perhaps increase its value to 100,000 dollars; so that in all, the American merchant might have imported commodities worth 52,500 dollars more than the flour originally sent to Spain." It is as impossible to deny that such a transaction as this is advantageous, as it is to deny that its advantage consists entirely in the excess of the value of the goods imported over the value of those exported. And it is equally clear that America might have had the balance of payments in her favor, though such transactions as the above had been multiplied to any conceivable extent.

Instead, therefore, of endeavoring to fetter and restrict the trade with those countries from which we should otherwise import a greater value than we exported, we ought to give it every possible facility. Every man considers that market as the best in which he is able to obtain the highest price, or the greatest value in exchange for his goods; why then should he be excluded from it? Why compel a merchant to dispose of a cargo of muslin for £10,000 rather than £12,000? The wealth of a state is made up of the wealth of individuals; and we have yet to learn that any more effectual method of increasing individual wealth can be devised than to permit every person to make his purchases in the cheapest, and his sales in the dearest market.

Erroneous Notions relative to the Balance of Trade have been the Cause of the Restrictions which have annihilated the Trade with France.

It would be difficult to estimate the mischief which absurd notions relative to the balance of trade have occasioned in almost every commercial country. In Great Britain they have been particularly injurious. It is principally to the prevalence of prejudices to which they have given rise, that the restrictions imposed on the trade between this country and France are to be ascribed. The great, and, indeed, the only argument insisted on by those who prevailed on the legislature to declare the trade with France *a nuisance* (*Prohibition Act, 1st William and Mary,*) was founded on the fact, that the value of the imports from that kingdom considerably exceeded the value of the exports. The balance was termed a *tribute* paid by England to France; and it was sagaciously asked, what had we done that we should be obliged to pay so much money to our deadly enemy? It never occurred to these wise persons, that no merchant would import any commodity from France, unless it brought a higher price in this country than the commodity exported in its stead; and that the profit of the merchant, or, which is the same thing, the national gain, would depend on this excess of price. The reason assigned for prohibiting the trade, affords the best proof of its having been a lucrative one. There cannot, indeed, be a doubt, that an unrestricted freedom of intercourse between the two countries would be of the greatest service to both. The peculiarities in the soil and climate, and in the national character of the people, of Great Britain and France, enable the one to produce various species of raw and manufactured commodities at a cheaper rate than they can be produced by the other. If we were allowed freely to purchase and import under moderate duties, the silks, the wines, and the brandies of France, those things which we can supply cheaper than our ingenious neighbors would be taken in payment. An extensive market would thus be created for a vast variety of articles, and a natural and powerful stimulus would be applied to the industry of both countries. Nobody denies that the trade with America, Portugal, and the Baltic is advantageous; and if so, why is the trade with France to be considered as prejudicial? Supposing the trade between the two countries were perfectly free, does any one imagine that our merchants would export or import any commodity to or from France, provided they could either sell or buy it on better terms anywhere else? If the restrictions on the French trade be not really injurious, that is, if the trade with France be either a losing or a less advantageous one than that with other countries, we may rest assured that the throwing it open would not make a single individual engage in it.

As the real price of commodities is always proportioned not only to the expense of their production, but also to the expense necessarily incurred in conveying them to the place where they are to be consumed, it is plain that a nation which prohibits trading with the countries in her vicinity must pay a higher price for her imported commodities, and be obliged to exact a higher price for those which she exports, than would be necessary were she able to procure the one or to dispose of the other in her immediate neighborhood. If the same sort of wine could be bought at Bordeaux equally cheap as at Lisbon, the difference of freight would enable it to be sold cheaper in London. It is this principle in fact, which renders the home trade peculiarly advantageous. The parties engaged in it live near each other, and consequently each obtains the commodity of which he stands in need at its cheapest rate, and without being obliged to pay any great additional sum on account of carriage. When, therefore, we restrict the trade with countries in our immediate vicinity, we act in the teeth of that very principle which is, in every other case, admitted to be advantageous. We compel such of our people as purchase foreign commodities, to buy them at a comparatively high price; while by raising the price of the commodities we export, the market for them is injuriously contracted.

But the partisans of the exclusive or mercantile system will perhaps tell us, that they do not mean to contend that it is profitable to export a greater value than is imported, but that by exporting an excess of raw and manufactured commodities, the balance of payments is rendered favorable, and that this balance (which they consider as representing the entire net profit made by the country on its transactions with foreigners) is always paid in *bullion.*

Favorable or Unfavorable Balance not always received or paid in Bullion.

It will, however, be easy to show that this statement is altogether erroneous; that a balance, whether on the one side or the other, is seldom or never cancelled by means of bullion; and that this balance is not a measure, and has in fact nothing to do with the profit or loss attending foreign commercial transactions.

1. So long as the premium on foreign bills is less than the expense attending the transit of bullion from a country which has an unfavorable real exchange, no merchant ever thinks of subjecting himself to an unnecessary expense, by exporting bullion to pay a foreign debt. But though the premium on foreign bills had increased, so as to equal the cost of exporting the precious metals, for it cannot *exceed* this sum, it does not by any means follow that they would therefore be exported. That depends entirely on the fact, whether bullion be, at the time, the cheapest exportable commodity, or, in other words, whether a remittance of bullion be the most advantageous way in which a debt may be discharged. If a London merchant owe £100 in Paris, he sets about finding out the cheapest method of paying it. On the supposition that the *real* exchange is two per cent. below par, and that the expense of remitting bullion, including the profit of the bullion merchant, is also two per cent., it will be indifferent to him whether he pay £2 of premium for a bill of £100 payable in Paris, or incur an expense of £2, by remitting £100 worth of bullion directly to that city. If the prices of cloth in Paris and London be such, that it would require £103 to purchase and send as much cloth to Paris as would sell for £100, he would undoubtedly prefer buying a bill or exporting bullion. But if, by incurring an expense of £101, the debtor be able to send as much hardware to Paris as would sell for £100, he would as certainly prefer paying his debt by an exportation of hardware. By doing so, he saves one per cent. more than if he bought a foreign bill or remitted bullion, and two per cent. more than if he exported cloth. If there had been any other commodity that might have been exported with more advantage, he would, of course, have used it in preference.

It is obvious, therefore, that the exportation of bullion is regulated by precisely the same principles which regulate the export and import of other commodities. It is exported when its exportation is most advantageous; that is, when it is less valuable at home and more valuable abroad than any other commodity; and it cannot be otherwise exported. The balance of payments might be a hundred millions against a country, without depriving it of a single ounce of bullion. No merchant would remit £100 worth of gold or silver from England to discharge a debt in Paris, if he could invest £98, £99, or any smaller sum in any other species of merchandise which, exclusive of expenses, would sell in France for £100. Those who deal in the precious metals are, we may depend upon it, as much under the influence of self-interest as those who deal in coffee or indigo. But who would attempt to discharge a foreign debt, by exporting coffee which cost £100, if he could effect the same object by sending abroad indigo which cost only £97? No person in his senses would export a hat to be sold for 20s. provided he could sell it at home for a guinea; nor would any person export an ounce of bullion, if its value were not less in the exporting than in the importing country, or if there were any other commodity whatever that might be exported with greater advantage.

2. It is in vain to contend that, by permitting an unrestricted freedom of trade, one country might become indebted to another, which had no demand for any sort of ordinary merchandise, and which would only accept of cash or bullion in exchange for its exports. Such a case never did, and never will, occur. A nation which is in want of money must also be in want of other things; for men only desire money because of its being the readiest means of increasing their command over the necessaries and enjoyments of life. The extreme variety, too, in the soil and climate, in the machinery, and in the skill and industry of the artisans belonging to different countries, must always occasion a considerable difference in the prices of their products. And until the cost of production be equalized, there must always be a foreign demand for those commodities which can be produced cheaper at home than abroad; and until the desire to accumulate be banished from the human breast, there must always be an inclination to send commodities from those countries where their exchangeable value is least, to where it is greatest.

3. In treating of the *nominal* exchange, we endeavored to show, that it is impossible that any country should be able, for any length of time, to import or export a greater quantity of bullion than may be necessary to preserve the value of bullion in it, in its proper relation to the bullion of other countries; or, which is the same thing, to have the *real* exchange either permanently favorable or unfavorable. But though this principle be strictly true in reference to its *aggregate* exchanges, it is incorrect when the state of its exchange with one country only is considered. Great Britain, for example, may constantly have the exchange in her favor with Portugal, provided she have it constantly, and to an equal extent, against her with the East Indies, or some other country. "She may," to use the words of Mr. Ricardo, "be importing from the north the bullion which she is exporting to the south. She may be collecting it from countries where it is relatively abundant, for others where it is relatively scarce, or where, from some particular causes, it is in great demand. Spain, who is the great importer of bullion from America, can never have an unfavorable exchange with her colonies; and as she must distribute the bullion she receives among the different nations of the world, she can seldom have a favorable exchange with the countries with which she trades." See *Reply to Mr. Bosanquet's Observations on the Report of the Bullion Committee*, p. 17; one of the best pamphlets that has ever been published on the subject of exchange.

It was by this principle that Lord King ingeniously, and we think successfully, accounted for the nearly continued favorable exchange between this country and Hamburg, from 1770 to 1799. His Lordship showed that the importation of bullion from Hamburg and other countries was only equivalent to the quantity exported to the East Indies and consumed at home; that the demand corresponded to the supply; and that its value remained pretty stationary. The extraordinary influx of bullion into this country from the continent at the era of the bank restriction in 1797, and the very favorable state of the exchange, were undoubtedly owing, in a very great degree, to the reduction in the issues of bank paper, and to the diminution of the gold currency caused by the hoarding of guineas, &c. In 1797 and 1798, above *five* millions of guineas were coined at the mint; and this extraordinary demand for gold is of itself abundantly sufficient to account for the very favorable exchange of that period, and for the length of time which it continued. But, at the same time that the demand for *gold* bullion for the mint was thus increased, the demand for *silver* bullion, for the purpose of exportation by the East India Company, had also been porportionally augmented. In 1795, the quantity exported on account of the Company, and of private persons, amounted to only 151,795 ounces.

In 1796 to .	290,777	In 1798 to .	3,565,691
1797 . .	962,880	1799 . .	7,287,327

From this period the exportation of silver to the East Indies was very much reduced; and, in the years in which the exchange was most unfavoreble, it had almost entirely ceased.

Instead, therefore, of the extraordinary importation of bullion from Hamburg in 1797 and 1798 affording, as Mr. Bosanquet and others have supposed, a practical proof of the fallacy of the opinion of those who contend that it is impossible, for any length of time, to destroy the natural equality in the value of bullion in different countries, it is a striking example of its truth. Without this influx, bullion in this country could not have maintained its proper value, as compared with that of other countries. We imported it, because, owing to the reduction of the paper currency, and the increased exports by the East India Company, its value was rendered higher here than on the continent; and, consequently, because the continental merchants found it advantageous to send bullion to us, in the same manner as they would have sent corn, or any other commodity for which there happened to be an unusual demand in Great Britian. For, however favorable the *real* exchange between Hamburg and London might have been to the latter, we should not have imported a single ounce of bullion, had it not been, at the time, the most advantageous article with which Hamburg could discharge its debt to London.

4. In the absence of all other arguments, it would be sufficient to state, that it is physically impossible that the excess of exports over imports, as indicated by the custom-house returns, should be paid in bullion. Every country in the world, with the single exception of the United States, has its apparently favorable balance; and of course, if they really existed, they would have to be paid by an influx of bullion from the mines correspondent to their aggregate amount. It is certain, however, that the entire produce of the mines, though it were increased in a *tenfold* proportion, would be insufficient for this purpose! This of itself is decisive of the degree of credit which ought to be attached to the commonly received opinions on this subject.

5. In the last place, the profit on transactions with foreigners does not consist in the quantity of bullion imported from abroad, but in "the excess of the value of the imports over the value of the exports." If, in return for exported commodities worth *ten* or *twenty* millions, we import such as are worth *fifteen* or *thirty*, we shall gain 50 per cent. by the transaction, though the exports should consist entirely of bullion, and the imports of corn, sugar, coffee, &c. It is a ridiculous prejudice that would make us import bullion rather than any other commodity. But whatever the partisans of the exclusive system may say about its being a *preferable product*, a *marchandise par excellence*, we may be assured that it will never appear in the list of exports or imports, while there is any other commodity with which to carry on trade that will yield a larger profit.

Effect of Fluctuations in the Real Exchange on Foreign Trade.

Thus it appears that the excess of exports over the imports, instead of being any proof of an advantageous commerce, is distinctly and completely the reverse;—that a commercial country may, and almost always does, import commodities of greater value than it exports, without rendering itself indebted to foreigners;—and that when a balance of debt has been contracted, that is, when the sum *payable to* foreigners for imported commodities is greater than the sum *receivable from* them for exported commodities, the balance will not be paid by sending bullion from the debtor to the creditor country, unless it be at the time the most profitable article of export.

We have, in the previous *section*, shown that fluctuations in the nominal exchange have no effect on foreign trade. When the currency is depreciated, the premium which an exporter derives from the sale of the bill drawn on his correspondent abroad, is barely equivalent to the increase in the price of the goods exported, occasioned by the depreciation. But when the premium on a foreign bill is not a consequence of a fall in the value of money, but of a deficiency in the supply of bills, there is no rise of prices, and under such circumstances the unfavorable exchange undoubtedly operates as a stimulus to exportation. As soon as the *real* exchange diverges from par, the mere inspection of a price current is no longer sufficient to regulate the operations of the merchant. If it be unfavorable, the premium which an exporter receives on the sale of bills must be included in the estimate of the profit he is likely to derive from the transaction. The greater that premium, the less will be the difference of prices necessary to make him export. And hence an unfavorable *real* exchange has exactly the same effect as a bounty on exportation equal to the premium on foreign bills.

But for the same reason that an unfavorable *real* exchange increases exportation, it proportionally diminishes importation. When the exchange is really unfavorable, the price of foreign commodities brought to our markets must be so much under their price at home, as not merely to afford, exclusive of expenses, the ordinary profit on their sale, but also to pay the premium which the importer must give for a foreign bill, if he remit one to his correspondent, or for the discount, added to the invoice price, if the latter draw upon him. A much less quantity of foreign goods will therefore suit our markets when the *real* exchange is unfavorable ; and fewer payments having to be made abroad, the competition for foreign bills is diminished, and the *real* exchange rendered proportionally favorable. In the same way, it is easy to see that a favorable *real* exchange must operate as *duty* on exportation. and as a *bounty* on importation.

It is thus that fluctuations in the *real* exchange have a necessary tendency to correct themselves. They can never, for any considerable period, *exceed* the expense of transmitting bullion from the debtor to the creditor country. But the exchange cannot continue permanently favorable or unfavorable to this extent. When favorable, it corrects itself by restricting exportation and facilitating importation; and when unfavorable, it produces the same effect by giving an unusual stimulus to exportation, and by throwing obstacles in the way of importation. The true PAR forms the centre of these oscillations; and though the thousand circumstances that daily and hourly affect the state of debt and credit, prevent the ordinary course of exchange from being almost ever precisely at par, its fluctuations, whether on the one side or the other, are confined within certain limits, and have a constant tendency to disappear.

The natural tendency which the exchange has to correct itself is powerfully assisted by the operations of the bill merchants.

The Operations of the Bill Merchants have a Tendency to lessen Fluctuations in the *Real* Exchange.

England, for example, may owe an excess of debt to Amsterdam, yet, as the aggregate amount of the debts *due* by a commercial country, is generally balanced by the amount of those which it has to receive, the deficiency of bills on Amsterdam in London will most probably be countervailed by a proportional redundancy of them in some other quarter. Now, it is the business of the merchants who deal in bills, as of those who deal in bullion or any thing else, to buy them where they are cheap, and to sell them where they are dear. They therefore buy up the bills drawn by other countries on Amsterdam, and dispose of them in London ; and by so doing, prevent any great fall in the price of bills on Amsterdam in those countries in which the supply exceeds the demand, and any great rise in Great Britain and those countries in which the supply happens to be deficient. In the trade between Italy and this country, the bills drawn on Great Britain amount almost invariably to a greater sum than those drawn on Italy. The bill merchants, however, by buying up the excess of the Italian bills on London, and selling them in France, Holland, and other countries indebted to England, prevent the *real* exchange from ever becoming very much depressed.

A large Foreign Expenditure has no Permanent Effect on the Exchange.

An unusual deficiency in the supply of corn, or of any other article of prime necessity, the demand for which could not be immediately contracted, by causing a sudden augmentation of the imports from abroad, materially affects the state of debt and credit with foreign countries, and depresses the exchange. In time of war the balance of payments is liable to be still further deranged; the amount of the bills drawn on a country carrying on foreign hostilities, being increased by the whole expense of its armaments abroad, and of subsidies to foreign powers. But neither the conjoined nor separate influence of both or either of these causes can exert any permanent influence over the exchange. A sudden increase in the accustomed supply of bills must, in the first instance, by glutting the market, occasion their selling at a discount; but this effect can only be of temporary duration. The unusual facilities which are then afforded for the exportation of manufactured produce to the foreign market, and the difficulties which are thrown in the way of importation, never fail speedily to bring the *real* exchange to par.

In a period of profound peace we may, by exporting an excess of raw or manufactured produce, overload the foreign market, and occasion such a decline in the price of British goods abroad, as to render the imported less valuable than the exported commodities with which they have been purchased. But such a state of things speedily effects its own cure. The distress which it necessarily occasions leads to an immediate diminution of exports; and the supply of British commodities in the foreign market being thus rendered more nearly commensurate with the demand, they of course sell for an adequate profit; and the value of the imports again exceeds, as it always ought to do, the value of the exports. But whenever a country has a large foreign expenditure to sustain, its exports are proportionally augmented. Such an expenditure can only be discharged either by the government directly sending ebroad an equivalent amount of commodities, or by means of bills of axc hange drawn against produce exported by private individuals. Supposing the foreign expenditure of Great Britain during the late war to have amounted to ten or twenty millions a-year, it is evident we must have annuall yexported an equal amount of the produce of our land, capital, and labor, for which payment would be received, not, as in ordinary cases, by a corresponding importation of foreign commodities, but from the treasury at home. This is strictly true, even though it were admitted that the expenditure had, in the first instance, been entirely discharged by remittances of bullion; for the increased supply of bullion which was thus required could be obtained only by an equally increased exportation of other produce to the countries possessed of mines, or from which it could be advantageously imported. Foreign expenditure, by increasing exports precisely in proportion to its own amount, is incapable of exerting any permanent effect on the exchange.

Thus it appears that a *really* great excess of exports, instead of being any criterion of increasing wealth at home, is only a certain indication of great expenditure abroad. "When," says Mr. Wheatley, "the exports exceed the imports, as they must do when there is a large foreign expenditure, the equivalents for the excess are received abroad in as full and ample a manner as if the produce which they purchased were actually imported and entered in the custom-house books, and afterwards sent to the seat of war for consumption. But from the circumstance of its not being inserted in the custom-house entries as value received against the produce exported for its payment, the latter is deemed to constitute a favorable balance, when it is in reality exported to liquidate a balance against us." (Wheatley *On the Theory of Money*, p. 219.)

Cause of the Rise of the Exchange in 1815 and 1816.

But however conclusive this reasoning may appear, it has nevertheless been contended, that it is at *variance with the fact;* and that the rise of the exchange in autumn, 1814, and its restoration to par in 1816, when the restriction on cash payments at the bank was in full operation, is a practical and convincing proof that its previous depression had not been a consequence of the depreciation of the currency, but of the excessive supply of bills on London in the foreign market, occasioned by the expensive contest in which we were then engaged. According to our view of the matter, however, this fact leads to a precisely opposite conclusion. It is of no use to tell us that the exchange came to par while the restriction act was unrepealed. It was never contended that the fact of such law being in existence had any effect on the currency. The restriction was justly condemned, because it *enabled* the Bank of England to deluge the country with paper. If the bank had never abused that power,—if the proprietors had sacrificed their own individual interests to those of the public, and had constantly kept their paper on a level with bullion,—the restriction act, though unwise, would, as to consequences, have been the same as if it had never existed. The question is not, therefore, whether the exchange came to *par* while the restriction continued, but *whether it came to* PAR *while as many notes circulated as in the period of its greatest depression?* If this could be shown, and if it could also be shown that the effective demand for paper had not, at the same time, been proportionally increased, the argument would be conclusive; and we should be compelled to admit that a great comparative increase of paper money has no tendency to diminish its value, or to render the *nominal* exchange unfavorable!

But it would be worse than idle to set about proving, by argument, a fact so notorious as the prodigious diminution of bank paper, in 1814, 1815, and 1816. In that period above 240 country banks stopped payment; and ninety-two commissions of bankruptcy were issued against these establishments; being at the rate of *one* commission against every *seven and a half* of the total number of banks existing in 1813! The Board of Agriculture estimated, that in the county of Lincoln alone above *three* millions of bank paper had been withdrawn from circulation; and the total diminution of the currency during the three years in question has seldom been estimated at less than from *sixteen* to *twenty* millions, though it probably amounted to a great deal more. Mr. Horner, the accuracy and extent of whose information cannot be called in question, made the following statement on this subject, in his place in parliament:

"From inquiries he had made, and from the accounts on the table, he was convinced that *a greater and more sudden reduction of the circulating medium had never taken place in any country than had taken place since the peace in this country*, with the exception of those reductions that had taken place in France after the Mississippi scheme, and after the destruction of the assignats. The reduction of the currency had originated in the previous fall of the prices of agricultural produce. That fall had produced a destruction of country-bank paper, to an extent which would not have been thought possible, without more ruin than had actually ensued. The Bank of England had also restricted its issues. As appeared by the accounts recently presented, the average amount of its currency was not, during the last year, more than between £25,000,000 and £26,000,000; while two years ago it had been nearer £29,000,000, and at one time even amounted to £31,000,000. But without looking to the diminution of Bank of England paper, the reduction of the country paper was enough to account for the rise which had taken place in the exchange."

Here, then, is the cause of the exchange coming to par in 1815 and 1816. It had nothing to do with the cessation of hostilities, but was entirely a consequence of the increased value of our currency, caused by the sudden reduction of its quantity. Instead, therefore, of being at variance with the principles we have been endeavoring to elucidate, this fact affords the strongest confirmation of their perfect correctness. And having been sanctioned by the fullest experience, they may be considered as beyond the reach of cavil and dispute.

An objection of a different sort has been made, by a very able economist, to another part of the theory maintained in this *section*, of which it may be proper to take some notice.

CHAPTER IV.

Unfavorable Real Exchange.

Refutation of the Opinion that, during an Unfavorable Real Exchange, Commodities of Great Value and Small Bulk are exported in preference to others.

When the exchange becomes unfavorable, the premium, procured by the sale of the bill drawn on a foreign merchant to whom bullion has been consigned, is no greater than would be obtained by consigning to him coffee, tea, sugar, indigo, &c. of equal value. An unfavorable *real* exchange permits a merchant to export commodities which could not be exported were the *real* exchange at par, or favorable; but the advantage still remains of exporting those commodities in preference, whose price in the country from which they are exported, compared with their price in the country into which they are imported, is lowest. Suppose, for example, that the expense of transmitting bullion from this country to France is *three* per cent.; that the *real* exchange is *four* per cent., against us; that the price of bullion is the *same* in both countries; and that coffee, exclusive of the expenses of carriage, is really worth *four* per cent. more in France than in England. In such a case, it is obvious, the exporter of bullion would realize only a profit of *one* per cent., while the exporters of coffee would realize, inclusive of the premium on the sale of the foreign bill, a profit of *seven* per cent. And hence the opinion maintained by Colonel Torrens (*Comparative Estimate*, &c.,) that when the exchange becomes unfavorable, those commodities which contain the greatest value in the smallest bulk, or on which the expense of carriage is least, would be exported in preference, appears to rest on no good foundation. The prices of the commodities which nations trading together are in the habit of exporting and importing, are regulated not merely by the cost of their porduction, but also by the expense necessarily incurred in carrying them from where they are produced to where they are consumed. If Great Britain were in the constant habit of supplying France with corn and bullion, the average price of corn in France, because of the expense required to convey it from this country, would plainly be from ten to fifteen per cent. higher than in Britain; while, because of the comparative facility with which bullion might be transported from the one to the other, its value in Paris would not exceed its value in London more than one or two per cent. Now, supposing that when the prices of both corn and bullion in Great Britain and France are adjusted according to their natural proportions, the *real* exchange becomes unfavorable to us; it is clear, that this fall in the exchange gives no more advantage to the exporters of bullion than to those of corn. The rise in the price of foreign bills does not increase the expense attending the exportation of corn or bullion. It leaves the cost of producing and transporting these commodities exactly where it found it. During the depression of the exchange, the exporters of both articles derive a premium from the sale of the bills drawn on their foreign correspondents. But there can be no inducement to export bullion in preference to corn, unless the real price of bullion should increase more rapidly in France, or decline more rapidly in Great Britain, than the real price of corn.

Whatever, therefore, may be the depression of theexchange, the merchant invariably selects those commodities for exportation, which, exclusive of the premium, yield the greatest profit on their sale. If bullion be one of these commodities, it will of course be exported; if not, not. Bullion, however, of all commodities, is that of which the value approaches nearest to an equality in different countries, and hence it is the least likely to be exported during an unfavorable exchange. The demand for it is comparatively steady, and no great surplus quantity could be imported into one country without reducing its value, or exported from another without raising its value, so as to unfit it either for exportation or importation. A very small part only of an unfavorable balance is ever paid in bullion. The operations of the bullion merchant are chiefly confined to the distribution of the fresh supplies which are annually dug from the mines proportionally to the effective demand of different countries. Its price is too invariable, or, which is the same thing, its supply and demand are too constant, to admit of its ever becoming an important article in the trade between any two countries, of which neither possesses mines.

In corroboration of this argument, we may mention that, according to the official statement laid on the table of the House of Commons, it appears that the expenses incurred by this country on account of the armies acting in Portugal and Spain during the following years, were as under:

In 1808	£2,903,540	In 1812	£31,767,794
1809	2,450,956	1813	
1810	6,066,021	1814	13,000,000
1811	8,906,700		

Of which, according to the same official statement, only the following sums were remitted in coin or bullion:—

In 1808	£2,861,339	In 1811	£748,053
1809	461,926	1812	3,284,435
1810	697,675	1813	

Of the sum of *five* millions voted to our allies in 1813 and 1814, not more than £300,000 was sent in bullion, the rest being made up by the exportation of manufactured goods and military stores. (*Edinburg Review*, vol. xxvi. p. 154.) The high market price of gold and silver in 1809, 1810, &c., could not therefore be owing to the purchases made by government, for they were not greater than the sums exported by the East India Company in 1798 and 1799, and in 1803, 1804, and 1805, when there was scarcely any perceptible rise in the price of bullion. The immense additions made to the paper currency of the country in 1809, 1810, &c., sunk its value compared with bullion, and was the true cause of the unfavorable *nominal* exchange of that period.

COMPUTED EXCHANGE.

Having thus endeavored to point out the manner in which variations in the comparative value of the currencies of nations trading together, and in the supply and demand for bills, separately affect the exchange, it now only remains to ascertain their combined effect. It is on this that the *computed* or actual course of exchange depends.

The Computed Exchange represents either the *Sum* or the *Difference* of the Real and Nominal Exchange.

From what has been already stated, it must be obvious, that when the nominal and real exchange are both favorable or both unfavorable, the *computed* exchange will express their *sum;* and that when the one is favorable and the other unfavorable, it will express their *difference.*

When, for example, the currency of Great Britain is of the mint standard and purity, and the currency of France five per cent. degraded, the nominal exchange will be five per cent. in favor of this country. But the *real* exchange may, at the same time, be either favorable or unfavorable. If it be also favorable to the extent of one, two, three, &c. per cent., the computed exchange will be six, seven, eight, &c. per cent. in favor of this country. And, on the other hand, if it be unfavorable to the extent of one, two, three, &c. per cent., the *computed* exchange will be only four, three, two, &c. per cent. in our favor. When the *real* exchange is in favor of a particular country, provided the *nominal* exchange be equally against it, the *computed* exchange will be at par, and *vice versa.*

A comparison of the market with the mint price of bullion affords the best criterion by which to ascertain the state of the exchange at any particular period. When no restrictions are imposed on the trade in the precious metals, the excess of the market over the mint price of bullion affords a pretty accurate measure of the depreciation of the currency. If the market and mint price of bullion at Paris and London exactly corresponded, and if the value of bullion were the same in both countries, the *nominal* exchange would be at par; and whatever fluctuations the computed exchange might exhibit, must, in such a case, be traced to fluctuations in the *real* exchange, or, which is the same thing, to the supply and demand for bills. If, when the market price of bullion in Paris is equal to its mint price, it exceeds it ten per cent. in London, it is a proof that our currency is ten per cent. depreciated, and consequently the *nominal* exchange between Paris and London *must* be ten per cent. against the latter. Instead, however, of the *computed* or actual course of exchange being ten per cent. against London, it may be against it to a greater or less extent, or in its favor. It will be more against it provided the *real* exchange be also unfavorable,—it will be less against it provided the *real* exchange be in favor of London, though to a less extent than the adverse *nominal* exchange,—and it will be in favor of London, should the favorable *real* exceed the unfavorable *nominal* exchange. Thus, if while British currency is ten per cent. depreciated, and French currency at par, the computed or actual course of exchange between Paris and London were twelve or fifteen per cent. against the latter, it would show that the *real* exchange was also against this country to the extent of two or three per cent. And if, on the other hand, the computed exchange was only five or six per cent. against London, it would show that the *real* exchange was four or five per cent. in its favor, and so on.

It has already been shown, that, in so far at least as the question of exchange is involved, the differences in the value of bullion in different countries are limited by the expense of its transit from one to another. And hence, by ascertaining whether a particular country exports or imports bullion to or from other countries, we are able to determine its comparative value in these countries. Suppose, for example, that the expense of conveying bullion from this country to France, including the profits of the bullion dealer, is two per cent.; it is clear, inasmuch as bullion is only exported *to find its level*, that whenever our merchants begin to export it to France, its value there must be two per cent. greater than in England; and, on the contrary, when they import bullion from France, it must be two per cent. more valuable here than in France. In judging of the exchange between any two countries, this circumstance must always be attended to. If no bullion be passing from the one to the other, we may conclude that its value is nearly the same in both; at all events, it is certain that the difference of its value is not greater than the expense of transit. On the supposition that the entire expense, including profit, &c. of conveying bullion from Rio Janeiro to London is five per cent., and that the London merchants are importing bullion, then it is clear, provided the real exchange be at par, and that the currency of both cities is at the mint standard, that the *nominal*, or, which in this case is the same thing, the *computed* exchange, will be five per cent. in favor of London. But if the currency of London be five per cent. depreciated, or, in other words, if the market price of bullion at London be five per cent. above its mint price, the *computed* exchange between it and Rio Janeiro, supposing the *real* exchange to continue at par, will obviously also be at par. It may therefore be laid down as a general rule, that as soon as bullion begins to pass from one country to another, *the expense of transit*, provided the mint and market price of bullion in the *exporting* country correspond, will indicate how much the value of bullion in it falls short of its value in the country into which it is imported; or, which is the same thing, will be equal to its unfavorable *nominal* exchange; and that, when the market exceeds the mint price of bullion in the *exporting* country, the expense of transit *added* to this excess will give the total comparative reduction of the value of the precious metals in that country. The converse of this takes place in the country *importing* bullion. When its currency is of the mint standard, the expense of transit measures the extent of its favorable *nominal* exchange; but when its currency is relatively redundant or degraded, the *difference* between the expense of transit and the excess of the market above the mint price of bullion, will measure the extent of the favorable or unfavorable *nominal* exchange. It will be favorable when the depreciation is less than the expense of transit, and unfavorable when it is greater.

State of the Exchange between Great Britain and the Continent from 1809 to 1815.

From 1809 to 1815 inclusive, Great Britain continued to export gold and silver to the Continent. During this period, therefore, we must add the expenses attending its transit to the excess of the market over the mint price of bullion, in order to ascertain the true relative value of British currency, and the state of the *real* exchange. Mr. Goldsmid stated to the bullion committee that, during the last five or six months of the year 1809, the expense of transporting gold to Holland and Hamburg, inclusive of freight, insurance, exporter's profits, &c., varied from four to seven per cent. But at the same time that the relative value of bullion in Britain was at five and a half (medium of four and seven) per cent. below its value in Hamburg, the market price of gold bullion exceeded its mint price to the extent of sixteen or twenty per cent. or eighteen per cent. on a medium; so that the currency of this country, as compared with the currency of Hamburg, which differed very little from its mint standard, was really depreciated to the extent of twenty-three and a half per cent. Now, as the *computed* or actual course of exchange varied, during the same period, from nineteen to twenty-one per cent. against London, it is clear that the *real* exchange could not be very different from par. Had the *computed* exchange been less unfavorable, it would have shown that the *real* exchange was in favor of London; had it been more unfavorable, it would, on the contrary, have shown that the *real* exchange was decidedly against London.

Causes of the Exportation of Bullion in 1809, 1810, &c.

Provided an accurate account could be obtained of the expense attending the transit of bullion from this country to the Continent during the subsequent years of the war, we have no doubt it would be found, notwithstanding the extraordinary depression of the *nominal*, that the *real* exchange fluctuated very little from par; and that the exportation of gold and silver was a consequence, not of the balance of payments being against this country, but of its being advantageous to export bullion, because of its being less valuable here than on the Continent. No person will contend that, in 1809, 1810, &c., there was such a redundancy of gold or silver currency in this country as to sink the relative value of these metals. Any such supposition is altogether out of the question. During the period referred to, the precious metals were sent out of the country, because the depreciation of the paper currency exceeded the cost of the transit of bullion; and hence, because it was every body's interest to pay their debts in the depreciated currency, and to export that which was undepreciated to other countries where there was no law to prevent its passing at its full value as coin, or in which there was a greater demand for bullion. It is indisputably certain that, if our *paper currency* had been sufficiently reduced, the supply of gold in the kingdom in 1809, 1810, &c., compared with the demand which must, under such circumstances, have been experienced, was so very small, that, instead of exporting, we should have imported the precious metals from every country in the world.

The Unfavorable Exchange during the latter Years of the War, no Cause of the Extraordinary Exportation of British Produce to the Continent.

It has been very generally supposed, that the extraordinary exportation of British goods to the Continent during the latter years of the war, was in a great measure owing to the depression of the exchange. But, in so far as this depression was occasioned by the redundancy or depreciation of the currency, it could have no such effect. It is impossible, indeed, to form any opinion as to the influence of fluctuations in the *computed* exchange on export and import trade, without previously ascertaining whether they are a consequence of fluctuations in the *real* or *nominal* exchange. It is only by an unfavorable *real* exchange that exportation is facilitated; and it may be favorable at the very moment that the *computed* exchange is decidedly unfavorable. "Suppose," to use an example given by Mr. Blake, "the computed exchange between Hamburg and London to be one per cent. against this country, and that this arises from a *real* exchange which is favorable to the amount of four per cent. and a nominal exchange unfavorable to the extent of five per cent.; let the real price of bullion at Hamburg and London be precisely the same, and, consequently, the *nominal* prices different by the amount of the *nominal* exchange or five per cent.; now, if the expenses of freight, insurance, &c., on the transit of bullion from Hamburg are three per cent., it is evident that a profit would be derived from the import of that article, notwithstanding the *computed* exchange was one per cent. against us. In this case the merchant must give a premium of one per cent. for the foreign bill, to pay for the bullion: £100 worth of bullion at Hamburg would therefore cost him £101, and the charges of importation would increase the sum to £104. Upon the subsequent sale, then, for £105 of depreciated currency in the home market, he would derive from the transaction a profit of £1. This sum is precisely the difference between the *real* exchange and the expenses of transit, that part of the *computed* exchange which depends on the *nominal* producing no effect; since whatever is lost by its unfavorable state is counterbalanced by a corresponding inequality of *nominal* prices." (*Observations*, &c., p. 91.). In the same manner it may be shown, that, though the *computed* be favorable, the *real* exchange may be unfavorable; and that, consequently, it might be really advantageous to export, when it is apparently advantageous to import. But it would be tedious to multiply instances, which, as the intelligent reader wlll readily conceive, may be infinitely varied, and which have been sufficiently explained.

The real cause of the extraordinary importation of British produce into the Continent in 1809, 1810, &c., notwithstanding the anti-commercial system of Napoleon, is to be found, not in the state of the exchange; for, inasmuch as that was occasioned by a fall in the value of the currency, it could have no effect whatever either in increasing or diminishing exportation; but in the annihilation of the neutral trade, and our monopoly of the commerce of the world. The entire produce of the East and West was placed at our disposal. The continental nations could neither procure colonial produce nor raw cotton for the purposes of manufacturing, except directly from England. British merchandise was thus rendered almost indispensable; and to this our immense exportation, in spite of all prohibitions to the contrary, is to be ascribed. (See *Edinburgh Review*, No. lxiii., p. 50.)

CHAPTER V.

Negotiation of Bills of Exchange.

In conducting the business of exchange, a direct remittance is not always preferred. When a merchant in London, for example, means to discharge a debt due by him in Paris, it is his business to ascertain not only the state of the direct exchange between London and Paris, and, consequently, the sum which he must pay in London for a bill on Paris equivalent to his debt, but also the state of the exchange between London and Hamburg, Hamburg and Paris, &c.; for it frequently happens, that it will be more advantageous for him to buy a bill on Hamburg, Amsterdam, or Lisbon, and to direct his agent to invest the proceeds in a bill on Paris, rather than remit directly to the latter. This is termed the ARBITRATION of exchange. An example or two will suffice to show the principle on which it is conducted.

Arbitration of Exchange.

Thus, if the exchange between London and Amsterdam be 35s. Flemish per pound sterling, and between Paris and Amsterdam 1s. 6d. Flemish per franc, then, in order to ascertain whether a direct or indirect remittance to Paris would be most advantageous, we must calculate what would be the value of the franc in English money if the remittance were made through Holland; for if it be less than that resulting from the direct exchange, it will obviously be the preferable mode of remitting. This is determined by stating, as 35s. Flem. (the Amsterdam currency in a pound sterling) : 1s. 6d. Flem. (Amsterdam currency in a franc) : : £1 : 10d. the proportional or *arbitrated* value of the franc. Hence if the English money or bill of exchange, to pay a debt in Paris, were remitted by Amsterdam, it would require 10d. to discharge a debt of a franc, or £1 to discharge a debt of 24 francs: and, therefore, if the exchange between London and Paris were at twenty-four, it would be indifferent to the English merchant whether he remitted directly to Paris, or indirectly *via* Amsterdam; but if the exchange between London and Paris were *above* twenty-four, then a direct remittance would be preferable; while, if, on the other hand, the direct exchange were less than twenty-four, the indirect remittance ought as plainly to be preferred.

"Suppose," to borrow an example from Dr. Kelly (*Universal Cambist*, vol. ii., p. 137,) "the exchange of London and Lisbon to be at 68d. per milree, and that of Lisbon on Madrid 500 rees per dollar, the arbitrated price between London and Madrid is 34d. sterling per dollar; for as 1000 rees: 6d.: : 500 rees: 34d. But if the direct exchange of London on Madrid be 35d. sterling per dollar, then London, by remitting directly to Madrid, must pay 35d. for every dollar; whereas, by remitting through Lisbon, he will pay only 34d.; it is, therefore, the interest of London to remit indirectly to Madrid through Lisbon. On the other hand, if London draws directly on Madrid, he will receive 35d. sterling per dollar; whereas, by drawing indirectly through Lisbon, he would receive only 34d.; it is, therefore, the interest of London to draw directly on Madrid. Hence the following rules:

"1. Where the *certain price* is given, draw through the place which produces the lowest arbitrated price, and remit through that which produces the highest.

"2. Where the *uncertain price* is given, draw through that place which produces the highest arbitrated price, and remit through that which produces the lowest."

In Compound Arbitration, or when more than *three* places are concerned, then, in order to find how much a remittance passing through them all will amount to in the last place, or, which is the same thing, to find the arbitrated price between the first and the last, we have only to repeat the different statements, in the same manner as in the foregoing examples.

Thus, if the exchange between London and Amsterdam be 35s. Flem. for £1 sterling; between Amsterdam and Lisbon 42d. Flem. for 1 old crusade; and between Lisbon and Paris 480 rees for 3 francs, what is the arbitrated price between London and Paris?

In the first place, as 35s. Flem.: £1: : 42d. Flem.: 2s. sterling, = 1 old crusade.

Second, as 1 old crusade, or 400 rees: 2s. sterling: : 480 rees: 2s. $4\frac{4}{5}$d. sterling, = 3 francs.

Third, as 2s. $4\frac{4}{5}$ sterling: 3 francs: : £1 sterling: 25 francs, the arbitrated price of the pound sterling between London and Paris.

This operation may be abridged as follows:

£1 sterling.
£1 sterling = 35s. Flemish.
$3\frac{1}{2}$ shillings Flem. = 1 old crusade.
1 old crusade = 400 rees.
480 rees = 3 francs.

$$\text{Hence } \frac{35 \times 400 \times 3}{480 \times 3\frac{1}{2}} = \frac{4200}{168} = 25 \text{ francs.}$$

This abridged operation evidently consists in arranging the terms so that those which would form the divisors in continued statements in the *Rule of Three* are multiplied together for a common divisor, and the other terms for a common dividend. Arithmetical books abound with examples of such operations.

The following account of the manner in which a very large transaction was actually conducted, by indirect remittances, will sufficiently illustrate the principles we have been endeavoring to explain.

In 1804 Spain was bound to pay France a large subsidy; and, in order to do this, three distinct methods presented themselves:

1. To send dollars to Paris by land.
2. To remit bills of exchange directly to Paris.
3. To authorize Paris to draw directly on Spain.

The first of these methods was tried, but it was found too slow and expensive; and the second and third plans were considered likely to turn the exchange against Spain. The following method by the indirect or circular exchange was therefore adopted.

A merchant, or *banquier*, at Paris, was appointed to manage the operation, which he thus conducted: He chose London, Amsterdam, Hamburg, Cadiz, Madrid, and Paris, as the principal hinges on which the operation was to turn; and he engaged correspondents in each of these cities to support the circulation. Madrid and Cadiz were the places in Spain from whence remittances were to be made; and dollars were, of course, to be sent to where they bore the highest price, for which bills were to be procured on Paris, or on any other places that might be deemed more advantageous.

The principle being thus established, it only remained to regulate the extent of the operation, so as not to issue too much paper on Spain, and to give the circulation as much support as possible from real business. With this view London was chosen as a place to which the operation might be chiefly directed, as the price of dollars was then high in England, a circumstance which rendered the proportional exchange advantageous to Spain.

The business was commenced at Paris, where the negotiation of drafts issued on Hamburg and Amsterdam served to answer the immediate demands of the state; and orders were transmitted to these places to draw for the reimbursements on London, Madrid, or Cadiz, according as the course of exchange was most favorable. The proceedings were all conducted with judgment, and attended with complete success. At the commencement of the operation, the course of exchange of Cadiz on London was 36d.; but, by the plan adopted, Spain got 39¼d. or above eight per cent. by the remittance of dollars to London, and considerable advantages were also gained by the circulation of bills through the several places on the Continent. (Kelly's *Cambist*, vol. ii., p. 168; Dubost's *Elements of Commerce*, 2d edit., p. 218.)

Usance Days of Grace.

Bills of exchange are made payable at *sight*;—at a certain specified time *after sight*, or *after date*;—or at *usance*, which is the usual term allowed by the custom or law of the place where the bill is payable. Generally, however, a few days are allowed for payment beyond the term when the bill becomes due, which are denominated *days of grace*, and which vary in different countries. In Great Britain and Ireland *three* days of grace are allowed for all bills except those payable at sight, which must be paid as soon as presented.

The following is a statement of the *usance* and *days of grace* for bills drawn by London on some of the principal commercial cities:

[*m||d. m||s. d||d. d||s. d||a.* respectively denote *months after date, months after sight, days after date, days after sight, days after acceptance.*]

London on	*Usance.*	*Days Grace.*	*London.*	*Usance.*	*Days Grace.*
Amsterdam,	1 m||d.	6	Gibraltar,	2 m||s.	14
Rotterdam,	1 m||d.	6	Leghorn,	3 m||d.	0
Antwerp,	1 m||d.	6	Leipsic,	14 d||a.	0
Hamburg,	1 m||d.	12	Genoa,	3 m||d.	30
Altona,	1 m||d.	12	Venice,	3 m||d.	6
Dantzic,	14 d||a.	10	Vienna,	14 d||a.	3
Paris,	30 d||d.	10	Malta,	30 d||d.	13
Bordeaux,	30 d||d.	10	Naples,	3 m||d.	3
Bremen,	1 m||d.	8	Palmero,	3 m||d.	0
Barcelona,	60 d||d.	14	Lisbon,	30 d||s.	6
Geneva,	30 d||d.	5	Oporto,	30 d||s.	6
Madrid,	2 m||s.	14	Rio Janeiro,	30 d||d.	6
Cadiz,	60 d||d.	6	Dublin,	21 d||s.	3
Bilboa,	2 m||d.	14	Cork,	21 d||s.	3

In France no days of grace are allowed on bills payable *à vue.*

In Austria, bills payable at sight, or on demand, or at less than seven days after sight or date, are not allowed any days of grace.

In the dating of bills the new style is now used in every country in Europe with the exception of Russia.

In London, bills of exchange are bought and sold by brokers, who go round to the principal merchants, and discover whether they are buyers or sellers of bills. A few of the brokers of most influence, after ascertaining the state of the supply and demand for bills, suggest a price at which the greater part of the transactions of the day are settled, with such deviations as particular bills, from their being in very high or low credit, may be subject to. The price fixed by the brokers is that which is published in Wettenhall's list; but it is stated by Mr. Goldsmid, that the first houses generally negotiate their bills on a half, one, one and a half, and two per cent. better terms than those quoted. In London and other great commercial cities, a class of middlemen speculate largely on the rise and fall of the exchange, buying bills when they expect a rise, and selling them when a fall is anticipated.

CHAPTER VI.

History and Advantages of Bills of Exchange.

It is not easy to discover the precise era when bills of exchange were first employed to transfer and adjust the mutual claims and obligations of merchants. Their invention has been ascribed to the Arabians and the Jews of the middle ages; but it seems certain that bills were in use in remote antiquity. Isocrates states that a stranger who brought some cargoes of corn to Athens, furnished a merchant of the name of Stratocles with an order or bill of exchange, on a town on the Pontus Euxinus, where money was owing to him; and, because the person who had drawn the bill had no *fixed domicile*, Stratocles was to have recourse on a merchant in Athens, in the event of its being protested. The merchant, says Isocrates, who procured this order found it extremely advantageous, inasmuch as it enabled him to avoid risking his fortune on seas covered with pirates and the hostile squadrons of the Lacedæmonians. (De Pauw, *Recherches sur les Grècs*, i. 258.)

There is also unquestionable evidence to show that the method of transferring and cancelling the debts of parties residing at a distance, by means of letters of credit, or, which is in effect the same thing, by means of bills of exchange, was not unknown to the Romans. Cicero, in one of his epistles to Atticus (*Epist. ad Atticum*, xii. 24,) inquires whether his son must carry cash to defray the expense of his studies along with him to Athens, or whether he might not save this trouble and expense *by obtaining an assignment for an equivalent sum from a creditor in Rome on his debtor there.* It is evident, from a subsequent epistle of Cicero's, that the latter method had been preferred, and that the transference of the money had in consequence been rendered unnecessary. (*Epist. ad Atticum*, xii. 27.) "De Cicerone, ut scribis, ita faciam: ipsi permittan de tempore: nummorum quantum opus erit ut *permutetur* tu videbis." In his notes on a parallel passage, Grævius remarks, *Permutatio* est quod nunc barbare *cambium* dicitur. (*Epist. ad Atticum*, xi. 24.)

Mr. Macpherson states (*Annals of Commerce*, i. p. 405,) that the first mention of bills of exchange in modern history occurs in 1255. The pope having quarrelled with Manfred, king of Sicily, engaged, on Henry III. of England agreeing to indemnify him for the expense, to depose Manfred, and raise his second son Edmund to the Sicilian throne. The enterprise misgave. But the merchants of Sienna and Florence who originally advanced the money to carry it into effect, or rather to gratify the pope's rapacity, were paid by bills of exchange drawn on the *Prelates* of England, who, although they protested they knew nothing at all about the transaction, were nevertheless compelled, under pain of excommunication, to pay the bills and *interest!*

Capmany, in his *Memoirs* respecting the Commerce, and so forth, of Barcelona, gives a copy of an ordonnance of the magistracy, dated in 1394, enacting that bills should be accepted within twenty-four hours after their presentation;—a sufficient proof that they were in general use in the beginning of the fourteenth century.

But whatever be the era of the introduction of bills of exchange, very few inventions have redounded more to the general advantage. Without this simple and ingenious contrivance, commerce could not have made any considerable progress. Had there been no means of settling and adjusting the mutual claims of debtors and creditors otherwise than by the intervention of metallic money (for bank paper is only another species of bills of exchange,) a very great proportion,—many hundreds of millions,—of that capital which is now setting productive labor in motion in every quarter of the globe, and ministering to the wants and the enjoyments of mankind, must have been devoted to the expediting those exchanges which are much better accomplished by the agency of a few quires of paper. Instead of a perpetual importation and exportation of gold and silver, necessarily attended by an immensity of trouble and expense, a few bills of exchange, possessing little or no intrinsic worth, and which may be transferred with the utmost facility, suffice to adjust the most extensive and complicated transactions. But the mere setting free of an immense productive power, engaged in a comparatively disadvantageous employment, is only one of the many benefits we owe to the use of bills of exchange. By cheapening the instruments by which commerce is carried on, they have materially reduced the prices of m ost commodities; and have, in consequence, increased the command of all classes over the necessaries and luxuries of life, and accelerated the progress of civilization, by occasioning a much more extensive intercourse and intimate connection between different and independent countries, than could otherwise have taken place.

In a political point of view their effects have been equally salutary. They enable every individual imperceptibly to transfer his fortune to other countries, and to preserve it safe alike from the rapacity of his own government and the hostile attacks of others. The security of property has, in consequence, been prodigiously augmented. And though we should concede to the satirist that paper credit has "lent corruption lighter wings to fly,"* it is easy to show that it has powerfully contributed to render subjects less dependent on the policy, and less liable to be injuriously affected by injudicious measures on the part of their rulers. In countries in a low stage of civilization, the inhabitants endeavor, by burying all the gold and silver they can collect, to preserve a part of their property from the despots by whom they are alternately plundered and oppressed. This was universally the case in the middle ages; and in Turkey, India, Persia, and other eastern countries, the practice is still carried on to a very great extent. Some economists have endeavored to account for the long-continued importation and high value of the precious metals in India, by the loss which necessarily attends the practice of hoarding; and undoubtedly this locking up of capital is one of the main causes of the extreme poverty of these countries. But the security afforded by bills of exchange is infinitely greater than any derived from the barbarous expedient of trusting property to the bosom of the earth. "Pregnant with thousands flits the *scrap* unseen," and in a moment places the largest fortune beyond the reach of danger! Mr. Harris was, therefore, right in saying, "that the introduction of bills of exchange was the greatest security to merchants, both as to their persons and effects, and consequently the greatest encouragement to commerce, and the greatest blow to despotism, of any thing that ever was invented." (Harris *on Coins*, part i. p. 108.)

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* Blest paper credit! last and best supply!
That lends corruption lighter wings to fly!
Gold imp'd by thee can compass hardest things,
Can pocket states, can fetch or carry kings;
A single leaf shall waft an army o'er,
Or ship off senates, to some distant shore;
A leaf, like Sibyll's, scatter to and fro
Our fates and fortunes, as the wind shall blow;
Pregnant with thousands flits the scrap unseen,
And silent sells a king, or buys a queen.—POPE.

Previously to the peace of Paris in 1763, Amsterdam, because of its commerce, the wealth and punctuality of its merchants, and their intimate connection with all the other great trading cities of the world, was the chief place where the accounts of the different commercial countries were balanced and adjusted. But the entire loss of foreign trade, and the other vexations to which Holland was subjected during the ascendancy of the French, nearly divested Amsterdam of all share in this business. London has now become the trading metropolis of Europe, and of the world. The vast extent of its commercial dealings has necessarily rendered it the great mart for bills of exchange. Its bill merchants, a class of men remarkable for their shrewdness, and generally possessed of large capitals, assist in trimming and adjusting the balance of debt and credit between the most remote countries. They buy up bills where they are cheap, and sell them where they are dear; and, by the extent of their correspondence and the magnitude of their transactions, give a steadiness to the exchange, which it could not otherwise attain.

CHAPTER VII.

Laws and Customs Respecting Bills and Notes.

A bill of exchange may be defined to be an open letter of request or order from one person, the *drawer*, to another person, the *drawee*, who is thereby desired to pay a sum of money, therein specified, to a third person, the *payee*. When the *drawee* obeys the request or order, by subscribing the document, he becomes *acceptor*. If the contrary do not appear on the face of the bill, it is presumed that the *drawee* has funds of the *drawer's* in his hands to the amount of the bill, and that the drawer is indebted to the *payee* to that extent. The bill thus operates as a transfer or mercantile assignment to the payee, of the drawee's debt to the drawer. But a bill may also be drawn payable to the *drawer* or his order, in which case, when accepted, the document is not an assignment, but merely the acknowledgment or constitution of a debt. This is also accomplishable by *promissory note*, which is a promise by one person, the *maker* (Scoticé *granter*,) to pay a sum to another person, the *payee* (Scoticé *grantee*.) The bill and the promissory note have now equally the privilege of being *assignable* or *transferable* from one person to another by indorsement, that is, by the *payee* subscribing his name on the back of the document. In this case the *payee* becomes an *indorser*, and the person in whose favor the indorsement is made is called the *indorsee*, who may again indorse to another; and in this manner the bill or note may pass from hand to hand without limitation. Each indorsation may be made *in full* or *in blank;* in full, by filling up the name and description of the party in whose favor it is made, which is attended with several advantages if the document should be lost or stolen; in blank, by merely subscribing the indorser's name, which is equivalent to making it payable to the *bearer*. All the indorsements, or any one of them, may also be *qualified* by the words *without recourse;* and when this is done, neither the indorsee nor any subsequent *holder* of the bill or note can have recourse on the indorser who thus qualifies his indorsation. If none of the indorsations be so qualified, the *last holder* for value, and *in bona fide*, has all the prior indorsers and other parties to the bill or note bound to him jointly and severally. He may select any one of them, or proceed against them all at the same time; and if all were to become bankrupt, he could claim on the estate of each for the whole debt, and be entitled to receive dividends from all the estates until he obtained *full payment*, but which he must not exceed. An indorser may also qualify his indorsation by the condition that his indorsee shall not have the power of making an indorsement from himself.

From the negotiability thus conferred upon them, bills have been compared to bags of money; but it should be remembered that, in the former case, we transfer only *a right*, in the latter the *property itself*. The comparison is best supported in those transferences which are made without recourse, since, in those instances, the bill passes from hand to hand without any alteration in the rights and duties of those interested in it, and without any one acquiring an additional security. In the simplest case, however, the rights arising on a bill may be preserved or lost by the conduct of the holder; and where there has been even one unqualified indorsation, the duties of the holder are of a delicate and important nature. But these will be more readily understood after we have pointed out the requisites of a bill.

Requisites of a Bill or Note.

The general requisites of a bill are, that it must be payable at all events; that it must be for payment of money only; and that the money must not be payable from any particular fund. Of the more special requisites, the *first* is, that any bill or note drawn or made in Great Britain (though dated abroad, Chitty, 5th edit. p. 70, 7. T. R. 601, 4 Camp. *Law*, 269,) or in its colonies, is, that it be written on paper *stamped* according to the law of the mother country or colony, as it happens to be drawn in the one or the other The stamp duty varies according to the sum in the bill, and the extension of the term of payment: but for these particulars, and the mode of complying with the provisions of the law, reference should be made to the statutes in force at the time. The present regulating statute is that of 55 Geo. III. c. 184, both as to *inland* bills and notes, and bills of exchange drawn here *on* foreign countries. As to bills truly drawn in foreign states not colonies of Great Britain, on traders in this country, our law takes no cognizance of them as to whether they are or are not stamped; but *promissory notes* made *out* of Britain are declared *not* to be negotiable or payable unless stamped agreeably to our laws. Bills drawn at home must also be written on the stamp appropriated for bills. If on a stamp of another denomination, though of equal or superior value, they are invalid if not got re-stamped, which they may be for payment of the duty and a penalty of 40s. when carried to the stamp-office before they are due, but when after due, the penalty is £10. If written on a stamp below the proper value, a penalty is incurred of £50, and the bills, besides, are *null* (Bell's *Com. on Bankrupt Law*, vol. ii. p. 249); but it has been found with us in England, that if a bill be *not* properly stamped, a neglect to present for acceptance or payment will not relieve parties who are *otherwise* liable in the *original debt* in respect of which the bill was granted. The relief in this case is granted by a court of equity, but this relief is not extended to remote indorsers not responsible for the original debt. Relief, however, is given when a party has bound himself to grant a valid note or bill, but gives one by mistake or design on a defective stamp. Negotiable bills under £5 must, by 37 Geo. III c. 32, be payable within twenty-one days, and bear the name of the *place* where they are made, without which also *checks* on bankers are liable to stamp-duty. Penalties are likewise imposed on the post-dating of such *checks*, or of bills, for the purpose of reducing the duty by apparently shortening the term of payment; and there are provisions in those laws respecting bills drawn in sets or otherwise, with which every trader should make himself acquainted. This, however, it is very difficult to do in all its bearings, since the penalties and provisions of the prior statutes are retained in every subsequent one, except as therein specially altered. This is one great evil of our fiscal regulations. Where the law cannot be known, transactions are rendered uncertain, property insecure, and litigation is increased to a mischievous extent. But the worst evil is, that this state of law increases in a prodigious degree the influence of the crown, by the power over traders which is thus placed in the hands of solicitors of stamps, excise, customs, and other crown officers.

The other requisites of a bill are, *2dly*, That it should bear the name of the place at which it is made or drawn; and if the street and number of the house be added, it is easier to give and receive the notices that may be necessary, in proper time. *3dly*, The *date* should be distinctly marked, and, if *written* at length, a higher protection would be afforded against accidental or intentional alterations and vitiations. If a bill have no date, the date of issuing will be held as the date of the bill. *4thly*, The time of payment should be clearly expressed, and a *time certain* is necessary to make the document *negotiable*; that is to say, the payment must not depend on an event that may never happen, such as the *marriage of a person*, though it may on the *death*. *5thly*, The *place* at which a bill is made payable should also, for the sake of safe negotiation, be distinctly stated; because at that place *presentment* must be made both for acceptance and payment. If no place be mentioned, the place of doing business, if the acceptor have one, or otherwise his dwelling-house, becomes the place of presentment. *6thly*, The sum payable should be clearly written in the body of the bill, and the superscription of the sum in figures will aid an omission in the body. This sum must in all cases be above 20s.; and if payable more than twenty-one days after date, it must exceed £5. *7thly*, It should contain an order or request to pay. *8thly*, Of bills drawn in parts or sets, each part or copy should mention the number of copies used, and be made payable on condition that none of the others has been paid. The *forgery* of an indorsement on one of the parts passes no interest even to a *bona fide* holder, and will not prevent the payee from recovering on the other part. *9thly*, Every bill should specify distinctly *to whom* the contents are to be paid; but a *bona fide* holder, or his executor, may fill up a blank, if one be left, for the name of the payee, and recover payment. (Chitty, 82.; Bell, vol. ii. p. 251, &c.) *10thly*, If it be intended that a bill is to be negotiable, it should contain the operative words of transfer "to order;" although if the original intention be clear, these words may be inserted without a fresh stamp. (Chitty, 86.) *11thly*, It is advisable in all cases to insert *value received;* since, without these words, the holder of an *inland* bill for upwards of £20 could not, in England, recover interest and damages against the drawer and indorser in default of acceptance or payment. Bills bearing for value received, and payable *after date*, seem also to possess advantages when lost, under the statutes 9 and 10 W. III. c. 17; but equity would probably extend these to indorsements; and 3 and 4 Anne, c. 9, it is thought, extends the same to notes. (Chitty, p. 196.) *12thly*, As to foreign bills, the drawee should attend to whether they are to be paid *with* or *without further advice;* since the propriety of his accepting or paying will, in the one case, depend on his having received advice. The more carefully all these requisites are attended to, the greater is the security of all concerned against accidents and litigation. But traders, we fear, have too generally a prejudice in favor of that brevity which approaches to looseness of expression, and against that precision which alone can keep them out of difficulties.

General Explanatory Rules and Usages. Business Hours. Rules of giving Notices. Effect of Inevitable Accident. How to act when Bill lost. Effect of Usury. Effect of Gaming. Effect of Forgery. Effect of Vitiation. Acceptance by Procuration. Conditional Acceptance. Indorsements.

When a bill, check, or note, is payable *on demand*, or when *no time of payment is expressed*, it should be presented within a reasonable time after receipt, and is payable *on presentment*. without the allowance of any days of grace. It is yet *unsettled* (Chitty, 344, *et seq.*) whether bills drawn *at sight* are entitled to days of grace, though the weight of authority is rather in favor of them. If drawn at one or more days after sight, the days of grace must be allowed. The day on which a bill is dated is not reckoned one; but all bills having days of grace, become due, and must be presented and protested, *on the third day*, and if that day be a Sunday or a holiday, on *the second*. The rule for giving notice of non-acceptance or non-payment is different, since, if the day on which it should have been given be a day of rest, by the religion of the party, such as the Jews' Sabbath, the notices will be good if given on the next day. Calendar months are always understood with respect to bills; and if dated on the 29th, 30th or 31st of January, payable *one month* after date, they will fall due on the *last day* of February. from which the days of grace are to be calculated. Presentments of bills should be made within business hours. These are generally considered to be in London from nine morning to six evening, but a protest has been held good against an ordinary trader when made at eight. This would not have been good in the case of bankers, whose hours (from nine to five in London) must be attended to. In Edinburgh, bankers' hours are from ten to three; traders from ten to three, and from six to eight; but there are no Scotch decisions holding these as the only business hours. A verbal notice of the dishonor of an *inland* bill is good; but as such notice is always matter of parole evidence, it is better in every case to give notice in writing, and the regular mode of doing so is by post. Such notice, if put into the general post-office, or an authorized receiving-house, is good though it miscarry, provided the letter be regularly booked, and reasonable proof be made of its having been put into the post-office. If given only to a bellman in the street, it would not in such a case be good. When there is no post, the ordinary mode of conveyance, such as the *first* ship or carrier, is sufficient. As to *foreign bills*, notices of dishonor with the respective protests, must be despatched by post on the day when the bills become due, or on which the acceptance was refused, if any post or ordinary conveyance set out that day, and if not, by the next earliest conveyance. (Chitty, 291.) As to *inland* bills, notice should be made by the first post after the expiry of a day, when the parties reside at a distance; if in the same town, it is enough if the notice be made so as to be received within business hours of the following day, and this may be done by the twopenny or penny post, if receivable within the time mentioned. When a holder deposits his bill at his banker's, the number of persons entitled to notice is increased by one; and each party in succession is entitled to *twenty-four hours* for giving notice (6 East. 3 Bell, 263.) Such notice, as to inland bills, is necessary in England for preserving recourse as to the principal sum only. If protest be made and notice given within fourteen days, the recourse is preserved as to *interest*, damages and expenses. In Scotland a protest is necessary in every case, and there is no distinction made as to the mode of recourse between principal and interest; but intimation to the drawer within *fourteen* days preserves recourse for the whole (Bell, vol. ii. p. 265); and it has been decided, that notice of an indorser may be good even after the fourteen days, if there has been no unnecessary delay. (*Fac. Col.* 2d June, 1812.) But this applies only to *inland* bills, and a bill drawn from Scotland upon England is in Scotland held to be foreign. (Bell, vol ii. p. 265.) Every bill should be presented for payment on the day upon which it falls due, unless that be rendered impossible by some unforeseen and *inevitable* accident, such as shipwreck, or sudden illness, or death. To preserve recourse, the accident, and the presentment of the bill as soon as possible afterwards, must be intimated without delay, and, if denied, proved by the party who seeks recourse. The same doctrine will hold as to presentments for non-acceptance and notices of dishonor. But the loss or destruction of a bill is no excuse for not demanding payment and protesting; the protest in that case being made upon a copy or statement of the bill, if the party who has a right to hold the bill has it in his power to make such a statement. If the destruction of the bill can be proved, action will be sustained in a court of law; if not, the redress is got upon giving an indemnity in a court of equity; but as equity will not interfere where law can, it is of importance in such a case, and indeed in all cases of difficulty, to resort at once to the best professional advice. Inconsiderate attempts to remedy neglects, or cure what is defective, generally make the case worse, and often implicate character. Cases of great hardship and difficulty frequently arose on bills granted partly for *usurious* consideration. A mighty benefit, however, has now been conferred by the statute 58 Geo. III. c. 93, which enacts "That *no bill* of exchange or promissory note that shall be drawn or made after the passing of this act shall, though it may have been given for a usurious consideration, or upon a usurious contract, *be void* in *the hands of an indorsee for valuable consideration*, unless such an indorsee had, at the time of discounting or paying such consideration for the same, *actual notice* that such bill, &c., had been originally given for a usurious consideration, or upon a usurious contract." It is much to be regretted that the same protection was not extended by this statute to the *innocent holder* of a bill granted for a game debt. Such bills are still void in the hands of a *bona fide* indorsee. In Scotland it has been decided otherwise (25th January, 1740, Nielson; Bell, vol. ii. p. 210.) The rage for legislation has not yet extended itself to lawyers, who as a body, can hardly be expected to display any anxiety to remedy defects which add to their emoluments and consequence. How much of the learning of this profession is wasted on niceties and difficulties that would readily yield to the spell of an act of parliament! To the law, however, we owe this sound maxim, that "unless it has been so expressly declared by the legislature, and it formerly was in the case of usury, and still is as to bills for *game* debts, illegality of consideration will be no defence in an action at the suit of a *bona fide* holder, without notice of the illegality, unless he obtained the bill after it became due. (Chitty, 105.) Thus *forgery* does not vitiate a bill. The forged document is good to and against all parties but those whose names are forged. Against one whose name is forged, it is true, it will neither support an action nor ground a claim; "yet if he have given credit to acceptances or indorsations as binding on him, forged by the same hand, he will be liable." (3 Esp. N. P. 50; 2 Bell, 250.) Subsequent approbation also does away an objection on the head of forgery or fraud, and generally all sorts of objections otherwise competent. This doctrine holds as to vitiations when the stamp laws are not concerned; but without the consent of parties, all vitiations or alterations of bills in material parts are fatal. (2 Bell, 252.) A clerk or servant may accept a bill for his master if authorized to so do; and authority will be inferred from a sanctioned practice. The law on this point is dangerous, and would require legislative revision. If the servant or agent do not explain the character in which he acts, but subscribes his own name simply, he will bind himself, not his employer. An acceptor may enlarge the term of payment, or accept for a part, or under any other condition not expressed in the bill; but in that case it is optional in the holder to take the acceptance as thus offered, or to proceed as if no such offer had been made; if rejected, the protest should bear the condition, and the rejection of it; it should also be kept in view, that a *holder* who accepts of a limited or conditional acceptance, liberates the drawer and prior indorser, unless he have their consent. Blank indorsements are held to be of the date of the bill, until the contrary is proved. Indorsements after the term of payment, though for value, do not protect the indorsees like indorsements before maturity; very slight evidence is admitted as proof of knowledge of dishonor, and the holder in that case becomes liable to all exceptions which can be stated against the right of his immediate indorser, or the person who held the bill when it became due. When acceptance is refused, and the bill returned with protest, action may be raised immediately against the drawer, though the regular time of payment is not arrived. His debt, in such a case, is considered as contracted the moment the bill was drawn; if the date of the bill be prior to that of a commission of bankrupt, the debt, in such a case, may be claimed upon. As to current bills and contingent claims, the case is unfortunately different; in these respects England might derive great help from the law of Scotland.

Duties of Drawee.

The *drawee*, who, having funds, refuses to accept, is responsible for the consequences to the *drawer*, and may also be sued for payment by the payee or holder, the presentment and protesting of the bill for non-acceptance operating as an intimated assignment and complete transfer of the debt *to the holder*, who in Scotland is preferred to any subsequent arrester. The *drawee* who has no funds is not bound to accept; but, after protest for non-acceptance, he may accept supra-protest, for the *honor* of the drawer and indorsers, or either of them. A *third party* may thus accept for *honor* supra-protest; and whoever does so, if he give immediate notice and send off the protest, may have immediate recourse on the party or parties for whose honor he has interfered.

Payee or Holder. Effect of Bankruptcy. Accommodation Paper. Cross Paper.

It is the duty of a *payee*, when directed by the drawer, and of every one who is merely an agent for the owner, though acting gratuitously, to present a bill for acceptance. The time thought reasonable for this purpose is twenty-four hours, or at least within business hours of the day following that on which the bill was received. It is prudent in all holders of a bill to present for acceptance within this period; and *in all cases* where presentment is made, and acceptance refused, notice should be given to all against whom it is meant to preserve recourse. A draft may be left twenty-four hours with the drawee, if no post go out in the mean time; but if he intimate within that time that he will not accept, or ask *more time* to consider, *notice should be given*. (Chitty, 288, 289.) A verbal acceptance, if it can be proved, or one by a separate writing, binds the drawee; but in Scotland none but a written acceptance on the bill will authorize the usual summary diligence. (Chitty, 217, 270; 2 Bell, 69, 240.) If the drawee had no funds, notice to the drawer is not necessary; but as the not having funds is a matter of fact to be proved, it is safer in this, and indeed in all other cases, to give the usual and regular notice. When a bill is drawn at some certain time *after sight*, presentment is *necessary* to fix the term of payment. Respecting bills of this description, both foreign and inland, the general rule is, that *due diligence must be used*. Foreign bills, so drawn, may be put into the circulation without acceptance as long as the convenience of the successive holders requires; and it has been found not to be *laches* (in Scotland *mora*, or undue delay,) to keep a bill (at three days' sight) out in the circulation for twelve months; but if, instead of circulating, a holder were to lock it up, this would be *laches*. An unacceptable inland bill may also be put in circulation; and any holder, who does not circulate it, has a reasonable time, such as the fourth day respecting a bill drawn within twenty miles of London, for presenting it there for acceptance. Despatch and attention, however, are always advisable. It is said that when a bill has been already protested for non-acceptance, and due notice thereof given, it is not necessary to protest or to give notice on account of non-payment, but it is usual to do so, and the safer practice. The same rules and the same time should be observed as to non-payment, that are observed as to protest and notice, in the case of non-acceptance. When inland bills are made payable on a day named and fixed in the bills, it is common to delay presenting them for acceptance, until they can also be presented for payment, and then, if necessary, to protest for both; but it is better to make a presentment for acceptance as soon as it can be done in the ordinary course of business. It has already been stated, that notice either of non-acceptance when a presentment has been made, or for non-payment, *must* be given *to all the parties* to whom the *holder* intends to resort for payment. Bankruptcy is no excuse for neglecting any step in the negotiation of a bill. If a party be bankrupt, notice of recourse should be given to him and his assignees; if *dead*, to his executor or administrator; if abroad, the notice should be left at his place of residence, if he have one, and a demand of acceptance or payment (when that is necessary) should be made of his wife or servant. Notice should also be made to one who merely guarantees payment; and a person who subscribes a bill not addressed to him is held to be a collateral security. If notice be made to one indorser, he may give notice to prior indorsers, or to the drawer; and if done timely it will be available to the holder; but notice by a party, not party to the bill, nor agent for a party, will not be available.

Accommodation bills are subject to the same rules as other paper, except among those who agree to lend their names or credit. Among them the rule is, that he for whose use the money is to be raised shall provide for the bill; but as all the others have an action of relief when forced to pay, they are entitled to notice. In Scotland this has been extended to the drawer when he is not the party for whom the credit was intended. With respect to cross paper, it is held that mutual accommodations exchanged are good considerations for each other; that in case of bankruptcy, a dividend from any one estate is to be held as payment of all that can be demanded in respect of that debt: and that there can be no double ranking of the same debt. But questions often arise in such cases, which require the utmost professional skill to comprehend and decide. In a short digest of this nature it is impossible to enter into the niceties of legal questions; and we can only observe generally, that parties should never act in cases of difficulty, without taking the best professional assistance.

The *law* respecting bills of exchange is more consonant with reason than almost any other branch of our law, since, where it is silent, recourse is had to the custom of merchants.

The best authorities respecting the law of bills are the treatises of Chitty and of Bayley as to English law, and Mr. Bell's *Commentaries on Mercantile Jurisprudence* as to Scotch law.

Table containing the Value of the Moneys of Account of different Places, expressed in Pence and Decimals of Pence, according to the Mint Price both of Gold and Silver in England; that is, £3 17s. 10½d. per Ounce for Gold, and 5s. 2d. per Ounce for Silver. (*Kelly's Cambist. ii. p.* 149.)

Places.	*Names.*	*Value in Silver.*	*Value in Gold.*
		d.	*d.*
Aix-la-Chapelle,	Rixdollar current,	31, 40	31, 43
Amsterdam,	Rixdollar banco, (agio at 4 per cent.)	52, 54	variable.
	Florin banco,	21,	ditto.
	Florin current,	20, 72	ditto.
	Pound Flemish current,	124, 32	ditto.
Antwerp,	Pound Flemish, (money of exchange,)	123, 25	123, 87
	Florin, (money of exchange,)	20, 54	20, 64
	Pound Flemish current,	105, 65	106, 18
	Florin current,	17, 60	17, 70
Barcelona,	Libra Catalan,	28, 14	26, 70
Basil,	Rixdollar, or ecu of exchange,	47, 27	47,
	Rixdollar current,	42, 45	42, 20
Berlin,	Pound banco,	47, 25	variable.
	Rixdollar current,	36,	ditto.
Berne,	Ecu of 3 livres,	42, 64	42, 90
	Crown of 25 batzen,	35, 53	35, 75
Bremen,	Rixdollar current,	37, 80	variable.
	Rixdollar in Carls d'or,	......	39, 68
Cassel,	Rixdollar current,	37, 80	variable.
Cologne,	Rixdollar specie of 80 albuses,	31, 38	ditto.
	Rixdollar current of 78 albuses,	30, 60	ditto.
Constantinople,	Piastre, or dollar,	9, 45	uncertain.
Dantzic,	Gulden or florin,	9,	9,
Denmark,	Rixdollar specie,	54, 72	......
	Rixdollar crown money,	48, 37	......
	Rixdollar Danish currency,	44, 27	44, 88
England,	Pound sterling,	240,	240,
Florence,	Lira,	8, 12	8, 53
	Ducat or crown current,	56, 84	59, 71
	Scudo d'or, or gold crown,	......	63, 97
France,	Livre Tournois,	9, 58	9, 38
	Franc, (new system,)	9, 70	9, 52
Francfort,	Rixdollar convention money,	37, 80	37, 65
	Rixdollar Muntze, or in small coins,	31, 50	......
Germany,	Rixdollar current,	37, 80	variable.
	Rixdollar specie,	50, 40	ditto.
	Florin of the empire,	25, 20	ditto.
	Rixdollar Muntze,	31, 50	ditto.
	Florin Muntze,	21,	ditto.
Geneva,	Livre current,	16, 13	16, 13
	Florin,	4, 60	4, 84
Genoa,	Lira fuori banco,	8,	7, 83
	Pezza, or dollar of exchange,	45, 92	45, 50
	Scudo di cambio, or crown of exchange,	36, 75	36, 02

Places.	*Names.*	*Value in Silver.* *d.*	*Value in Gold.* *d.*
Hamburg,	Mark banco, (at a medium,)	18, 22	variable.
	Pound Flemish banco,	136, 65	ditto.
	Mark current,	14, 82	variable.
	Pound Flemish current,	111, 15	ditto.
Hanover,	Rixdollar, (in cash,)	42,	42, 26
	Rixdollar, (gold value,)	39,	39, 24
Königsberg,	Gulden or florin,	12,	variable.
Leghorn,	Pezza of 8 reals,	46, 25	49, 16
	Lira moneta buona,	8, 13	8, 55
	Lira moneta lunga,	7, 79	8, 19
Leipsic,	Rixdollar convention money,	37, 80	variable.
	Rixdollars in Louis d'ors or Fredericks,	.....	39, 68
Malta,	Scudo or crown,	21, 32	23, 34
Milan,	Lira imperiale	10, 41	10, 53
	Lira corrente,	7, 45	7, 44
	Scudo imperiale,	60, 90	61, 60
	Scudo corrente,	42, 32	42, 78
Modena,	Lira,	3, 72	......
Munich,	Gulden or florin,	21,	21, 28
Naples,	Ducat of 1818,	41, 20	41, 22
Parma,	Lira,	2, 35	2, 40
Persia,	Toman of 100 mamoodis,	287, 60	......
Poland,	Gulden or florin,	6, 03	6, 27
Portugal,	Milree,	......	67, 34
	Old crusade,	......	26, 94
Riga,	Rixdollar Alberts,	52, 54	variable.
	Rixdollar currency (agio at 40 per cent.)	37, 53	ditto.
Rome,	Scudo or crown,	52, 05	51, 63
	Scudo di stampa d'oro,	79, 37	78, 73
Russia,	Ruble,	......	variable.
Sardinia,	Lira,	18, 21	18, 82
Sicily,	Ounce,	123, 54	124, 80
	Scudo or crown,	49, 02	49, 92
Spain,	Real of old plate,	4, 88	4, 57
	Real of new plate,	5, 18	4, 86
	Real of Mexican plate,	6, 48	6, 07
	Real Vellon,	2, 59	2, 43
	Dollar of old plate, or of exchange,	39,	36, 59
Sweden,	Rixdollar,	55, 41	56, 43
Switzerland,	Franc, (new system,)	22, 14	......
Trieste,	Florin, Austrian currency,	25, 20	25, 05
	Lira, Trieste currency,	4, 76	4, 73
	Lira di piazza,	4, 65	4, 63
Turin,	Lira,	11, 28	11, 23
Valencia,	Libra,	39, 45	36, 59
Venice,	Lira piccola, (in the old coins,)	5, 07	variable.
	Lira piccola, (in the coins introduced by the Austrians,	4, 25	ditto.
Vienna,	Florin,	25, 20	25, 05
Zante,	Real,	4, 06	variable.
Zurich,	Florin, money of exchange,	25, 85	ditto.
	Florin current,	23, 50	ditto.

Par of Exchange between England and the following places, viz., Amsterdam, Hamburg, Paris, Madrid, Lisbon, Leghorn, Genoa, Naples, and Venice; the same being computed from the intrinsic value of their principal Coins, by comparing Gold with Gold, and Silver with Silver, according to their Mint Regulations, and to assays made at the London and Paris Mints. (Presented by Dr. Kelly to the Committee of the House of Lords on the expediency of the Bank's resuming Cash Payments.)

	GOLD.		SILVER.				EXPLANATIONS.
			Old Coinage.		New Coinage.		
	Mint Regulations	*Assays.*	*Mint Regulations*	*Assays.*	*Mint Regulations*	*Assays.*	Moneys of Exchange.
Amsterdam, banco,	36 8	36 6,8	37 3	37 10,5	35 0	35 6,5	Schillings and pence Flemish per pound sterling. Agio two per cent.
Amsterdam, current,	11 4,5	11 3,8	11 8,5	11 11,8	10 14,6	1017,6	Florins and stivers per pound sterling.
Hamburg, . .	34 3,5	34 1,5	35 1	35 1,3	32 11	32 11,5	Schillings & pence Flemish banco per pound ster.
Paris, . .	25 20	25 26	24 73	24 91	23 23	23 40	Francs and cents per pound sterling.
Madrid, . .	37.3	37.2	39.2	39.0	41.7	41.5	Pence sterling for the piastre or dollar of exch'ge.
Lisbon, . .	67.4	67.5	60.41	58.33	64.30	62.69	Pence sterling per milree.
Leghorn, . .	49.1	49.0	46.46	46.5	49.60	49.5	Pence sterling per pezza of exchange.
Genoa, . .	45.5	45.5	46.46	48.9	49.4	52.0	Pence sterling per pezza fuori banco.
Naples, . .	41.22	....	41.22	....	43.9	....	Pence sterling per ducat (new coinage of 1818.)
Venice, . .	46.3	46.0	47.5	49.0	44.6	46.1	Lire piccole per pound sterling.

EXCHANGE also signifies a place in most considerable trading cities, where the merchants, agents, bankers, brokers, interpreters, and other persons concerned in commerce, congregate on certain days, and at certain times of the day, to confer and treat together of matters relating to exchanges, remittances, payments, adventures, assurances, freightments, and other mercantile negotiations, both by sea and by land. In Flanders, in Holland, and in several cities of France, these places are called *Bourses;* at Paris and at Lyons, *Places de Change;* and in the Hanse Towns, *Borsenhalle.* These assemblies are held with so much exactness, and merchants and traders are so indispensably required to attend at them, that a person's absence alone makes him suspected of a failure or bankruptcy. The most considerable exchanges in Europe are, first, that of Amsterdam, and, secondly, that of London, called the Royal Exchange.

Even in the time of the ancient Romans, there were places for merchants to meet, in most of the considerable cities of the empire. That which is said by some to have been built at Rome in the year of the city 259, or 493 years before Christ, under the Consulate of Appius Claudius and Publius Servilius, was called *Collegium Mercatorum*, of which it is pretended there are still some remains, called by the modern Romans *Loggia* or the Lodge, and now usually the place of St. George. This notion of a Roman exchange is supposed to be countenanced by the authority of Livy.

ERRATUM.

Page 62, 12th line from top, for "6d." read "68d."

(*The Bankers' Magazine contains the following elaborate Essay on Exchange, by J. R. McCulloch, Esq.*)

ESSAY ON EXCHANGE.

By J. R. McCULLOCH.

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⁂ The whole of this Essay is contained in "The Bankers' Magazine for 1850." Published monthly at five dollars per annum.

J. Smith Homans, 111 Washington Street, Boston.

ESSAY ON MONEY.

By J. R. McCULLOCH, Esq.

AUTHOR OF "THE DICTIONARY OF COMMERCE," "PRINCIPLES OF POLITICAL ECONOMY," &c.

(*The whole of this Essay will be contained in the Bankers' Magazine for* 1850.
Published monthly, five dollars per annum.)

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⁂ The whole of this Essay will be republished in "The Bankers' Magazine for 1850," from "The Encyclopædia Britannica," seventh edition.

The Bankers' Magazine also contains Mr. McCulloch's able Essays on "Exchange" and "Interest." Published monthly, at five dollars per annum.

J. Smith Homans, 111 Washington Street, Boston.

AN ESSAY ON MONEY,

With Remarks on Coins, Bullion, Metallic and Paper Currency, Seignorage, Degradation of the Standard, &c.; together with Copious Tables of the Weight, Value, &c., of the Coins of Various Nations.

BY J. R. McCULLOCH.

CHAPTER I.

Circumstances which led to the Use of Money.—Principal Properties that every Commodity used as such ought to possess.—Not a Sign or a Measure of Value, but a Real Equivalent.

Circumstances leading to the Use of Money.

Money is a term used to designate whatever commodity the inhabitants of any particular country accept, either voluntarily or by compulsion, as an equivalent for their labor, and for whatever else they have to dispose of.

A country in which the division of labor was unknown, and where every individual or family directly produced the commodities necessary for his or their consumption, would have no exchanges, and consequently no money. But after the division of labor has been established, the introduction of money becomes necessary, or, at least, highly advantageous. A very small part only of a man's wants is then directly supplied by his own labor. The greater part is indirectly supplied by exchanging that part of the produce of his labor which exceeds his own consumption, for such parts of the produce of other men's labor as he has occasion for, and they are willing to part with. Every man thus lives by exchanging, or becomes in some measure a merchant, and the society itself grows to be what is properly a commercial society.

"But when the division of labor first began to take place, this power of exchanging must frequently have been very much clogged and embarrassed in its operations. One man, we shall suppose, has more of a certain commodity than he himself has occasion for, while another has less. The former, consequently, would be glad to dispose of, and the latter to purchase a part of this superfluity. But if this latter should chance to have nothing that the former stands in need of, no exchange can be made between them. The butcher has more meat in his shop than he himself can consume, and the brewer and the baker would each be willing to purchase a part of it; but they have nothing to offer in exchange except the different productions of their respective trades, and the butcher is already provided with all the bread and beer which he has immediate occasion for. No exchange can, in this case, be made between them. He cannot be their merchant, nor they his customers; and they are all of them thus mutually less serviceable to one another. To avoid the inconvenience of such situations, every prudent man, in every period of society, after the establishment of the division of labor, must naturally have endeavored to manage his affairs in such a manner as to have at all times by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or another, such as he imagined few people would be likely to refuse in exchange for the produce of their industry." (Wealth of Nations, vol. i, p. 43, McCulloch's ed.)

Commodities used as Money in Different Countries.

An infinite variety of commodities have been used as money in different countries and states of society. Those nations who chiefly subsist by the chase, such as the ancient Russians, and the greater part of the Indians who now occupy the uncultivated portion of America, use the skins of wild animals as money. In a pastoral state of society cattle are most commonly used for that purpose. Homer tells us that the armor of Diomede cost only nine oxen, whilst that of Glaucus cost one hundred. (Ilia. lib. 6, lin. 235.) The etymology of the Latin word (pecunia) signifying money, and of all its derivatives, proves that cattle (pecus) had been the primitive money of the Romans. They had also been used as such by the ancient Germans; for their laws uniformly fix the amount of the penalties to be paid for particular offences in cattle. (Storch, in loco citato.) In remoter ages corn was very generally used in agricultural countries as money; and even now it is by no means uncommon to stipulate for corn rents and wages. Other commodities have been used in different countries. Salt is said to be the common money of Abyssinia (Wealth of Nations, i, p. 45); a species of shell called cowries, gathered on the shores of the Maldive Islands, are used in smaller payments throughout Hindustan, and form the only money of extensive districts in Africa. Dried fish forms the money of Iceland and Newfoundland, and sugar of some of the West India Islands; and Dr. Smith mentions that there was at the period of the publication of the "Wealth of Nations," a village in Scotland where it was customary for a workman to carry nails as money, to the baker's shop or the ale house. (Wealth of Nations, i, p. 45.)

Defects of these Commodities.

But these commodities are universally deficient in some of the principal requisites which every commodity used as money ought to possess. Products must frequently be brought to market worth only half an ox, or half a skin; but as an ox could not be divided, and as the division of a skin would most probably deprive it of the greater part of its value, it would be impossible to exchange them for such money. Divisibility is not, however, the only indispensable requisite in a commodity used as a medium of exchange. It is necessary that it should admit of being kept for an indefinite period without deteriorating; that it should, by possessing great value in small bulk, be easily transported; and that one piece of money, of a certain denomination, should always be precisely equivalent to every other piece of money of the same denomination. But none of the commodities above named as having been used as money possesses these properties. Though cattle had been sufficiently divisible, they could neither be preserved, nor transported from one place to another, without a great deal of trouble and expense; while, owing to the difference in their qualities, one ox might be worth two or three oxen of an inferior species. It is plain, therefore, that they could not serve as money except in a very rude state of society, when the arts were almost unknown, and when the rearing of cattle formed the principal employment. Corn was sufficiently divisible; but its bulk was far too great in proportion to its value to admit of its easy transportation, and it was also of very different and not easily appreciated qualities. Salt, sugar, shells, and fish, are all liable to insuperable objections. The values of equal quantities of all of them differ very greatly; some of them cannot be divided, and others cannot be preserved or transported without great loss.

But the commodities in question were deficient in a still more important particular. Their value was not sufficiently *invariable* to permit of their being advantageously used as money. They were not durable commodities, nor was it possible to adjust their supply so as to avoid sudden fluctuations of price. The occasional abundance and scarcity of pasture has a powerful influence on the price of cattle, which is still more seriously affected by the prevalence of epidemical diseases, and other contingencies. The fluctuations in the price of corn, arising from the variations of the seasons, are too striking and obvious to require to be pointed out. And in the islands where cowries are picked up, a strong gale from a particular point of the compass has frequently, in a few hours, sunk their value considerably. It was impossible, therefore, that such commodities could ever be either generally or permanently used as money in civilized societies. No person would willingly exchange the produce of his industry for a commodity which might, in a few weeks, or even days, lose a third or a half of its value.

Gold and Silver the fittest Materials for Money, and first used in the shape of Bars or Ingots.

The desire of uniting the different qualities of invariability of value, divisibility, durability, facility of transportation, and perfect sameness, doubtless formed the irresistible reasons which have induced mankind, in every civilized society, to employ gold and silver as money. The value of these metals is certainly not invariable, but it changes only by *slow* degrees; they are divisible into any number of parts, and have the singular property of being easily reunited, by means of fusion, without loss; they do not deteriorate by being kept; and, from their firm and compact texture, they are very difficult to wear; their cost of production, especially of gold, is so considerable, that they possess great value in small bulk, and can, of course, be transported with comparative facility; and an ounce of pure gold or silver, taken from the mines in one quarter of the world, is precisely identical with an ounce of pure gold or silver dug from the mines in any other quarter. No wonder, therefore, when almost all the qualities necessary to constitute money are possessed in so eminent a degree by the precious metals, that they have been used as such, in civilized societies, from a very remote era. They became *universal* money, as M. Turgot has observed, " not in consequence of any arbitrary agreement among men, or of the intervention of any law, but by the nature and force of things."

A considerable period must, however, have elapsed after the introduction of the precious metals into commerce, before they were generally used as money. But, by degrees, the various qualities, which so peculiarly fit them for this purpose, would become obvious; and every individual, in consulting his own advantage, would endeavour to exchange a part, at least, of the produce of his industry for commodities which could be easily concealed or carried about, which did not deteriorate by being kept, and of which he could give a portion equal in value to the value of any other commodity he might afterwards wish to obtain. When first brought to market, gold and silver, like copper, iron, or any other metal, were in an unfashioned state, in bars or ingots. A sheep, an ox, a bushel of wheat, &c., was then bartered for a piece of gold or silver, exactly as it would have been bartered for iron, copper, cloth, or any other commodity. The parties first agreed upon the *quality* of the metal to be given for the goods, and the *quantity*, which the possessor of the metal had bound himself to pay, was next ascertained by weight. Nor is this a mere conjectural statement, advanced in a later age to explain appearances, and resting on probability only. Aristotle (*Polit.*, lib. i. cap. 9) and Pliny (*Hist. Nat.*, lib. xxxiii. cap. 3) tell us, that such was, in fact, the original method by which the precious metals were exchanged in Greece and Italy; and the sacred writings present us with a striking and remarkable example of the prevalence of the same primitive practice in the East. We are there told that Abraham *weighed* four hundred shekels of silver, and gave them in exchange for a piece of ground he had purchased from the sons of Heth. (*Genesis*, chap. xxiii. ver. 16.) It is also mentioned, that this silver was "*current money with the merchant*," an expression which evidently refers to its quality only. For, had it been coined, or marked with a stamp, indicating its weight and fineness, it would have been unnecessary to have weighed it. These ancient practices still subsist in various countries. In many parts of China, gold and silver do not circulate as coin under the authority of a public stamp, but their value is always ascertained by weight. When exchanged, they are cut into pieces, supposed to be nearly proportioned to the value of the commodity they are to be given for; and the pieces are then weighed to ascertain their precise value. This practice is also prevalent in Abyssinia and Tonquin. (Goguet, *De l'Origine des Loix, &c.*, tom. i. p. 268, 4to edit. See also Park's *Travels*, vol. i. p. 464, 8vo edit.)

Before the art of metallurgy was well understood, the baser metals were frequently used as money. Iron was the primitive money of the Lacedæmonians, and copper of the Romans. But both iron and copper deteriorate by being kept; and, besides this defect, the rapid improvement of the arts, and the consequent reduction of their price, speedily rendered their bulk in proportion to their value too great to permit of their continuing to be used as money. Copper, however, is still advantageously used in the form of tokens, convertible into silver in very small payments. In Great Britain, copper pence and halfpence are at present rated at about seventy-two per cent. above their real value; but as the issue of them is exclusively in the hands of government, and as they are legal tender to the extent of one shilling only, in any one payment, this over-valuation has not, for reasons which we shall afterwards explain, had any bad effect. (See *Memorandum on the Silver Coinage of* 1817, *by the Master of the Mint*, p. 378 of the Appendix to the Lords' *Report on the Resumption of Cash Payments by the Bank.*)

Coinage of Gold and Silver.

The trouble and inconvenience attending the weighing of the quantity of metal in every exchange of gold and silver for commodities, must have been early experienced. But the greatest obstacle to the use of unfashioned metals as money, would undoubtedly be found in the difficulty of determining their quality, or the degree of their purity, with sufficient facility and accuracy. The operation of *assaying* is one of great nicety and delicacy; and, notwithstanding all the assistance derived from modern art, it is still no easy matter to ascertain the precise degree of purity of a particular piece of metal. In early ages, such an operation must have been performed in a very clumsy and bungling manner. It is most probable, indeed, that when the precious metals were first used as money, their quality was appreciated only by their weight and color. A very short experience would, however, be sufficient to show the extreme inexactness of conclusions derived from such loose and unsatisfactory criteria; and the devising of some method by which the fineness of the metal might be easily and correctly ascertained, would very soon be felt as indispensable to the general use of gold and silver as money. Such a method was not long in presenting itself. It was early discovered, that, to ascertain the purity of the metal, and also to avoid the trouble and expense of weighing it, no more was necessary than to mark each piece with a *stamp*, declaring its weight and fineness. Such seem to have been the various steps which led the ancients to the introduction of *coined* money (Goguet, *De l'Origine des Loix, &c.*, tom. i. p. 269); an invention of the very greatest utility, and which has, perhaps, contributed more than any other to facilitate commerce, and to accelerate the progress of civilization and the arts.

Advantages of Coined Money. — Coined Money not a Sign or a Measure of Value.

"Without some article of known exchangeable value, such as coin, readily received as an equivalent for other things, the interchange of commodities must have been very limited, and, consequently, the divisions of labor very imperfectly established. Now, money obviates these evils, and, by a twofold operation, augments production. In the first place, it saves all that time and labor which, while the intercourse between man and man is carried on by barter, must frequently intervene before a person can be supplied with the quantity of the commodity which he wants. In the second place, and in consequence of its saving the time and labor which must otherwise be spent in effecting exchanges, it multiplies the transactions of mercantile industry, and thus allows the divisions of employment to be more thoroughly established. By the first operation, it disengages a very considerable portion of labor from an unproductive occupation, and enables it to receive a more useful direction. By the second operation, it increases in a very high degree the productive powers of the labor already usefully employed. It assists every man in availing himself of the skill and dexterity which he may have acquired in any particular calling, and promotes cultivation in a manner suitable to the climate and soil of different districts, and of different countries. And by both these operations, coined money increases, to an extent not easy to be calculated, the wealth of civilized communities." (Torrens *On the Production of Wealth*, p. 305.)

But, whatever may be the advantages attending the use of coined money, and they are great and obvious, it is necessary to observe, that its introduction does not affect the nature of exchanges. Equivalents are still given for equivalents. The exchange of a quarter of corn for an ounce of pure, unfashioned gold bullion, is undeniably as much a real barter, as if it had been exchanged for an ox, or a barrel of beer. But supposing the metal to have been formed into a coin, that is, marked with a stamp indicating its weight and fineness, it is plain that circumstance could have made no change in the terms of the barter. The coinage saves the trouble of weighing and assaying the bullion, but it does nothing more. *A coin is merely a piece of metal of a known weight and fineness ;* and the commodities exchanged for it are always held to be of equal value. And yet these obvious considerations have been very generally overlooked. Coined money, instead of being viewed in the same light as other commodities, has been looked upon as something quite mysterious. It was said to be both a *sign* and a *measure* of value. In truth, however, it is neither the one nor the other. A sovereign is not a sign, it is the thing signified. A promissory note, payable at some stated period, may not improperly be considered as the sign of the specie to be paid for it ; but that specie is itself a commodity possessed of real exchangeable worth. It is equally incorrect to call money a measure of value. Gold and silver do not measure the value of commodities, more than the latter measure the value of gold and silver. Every thing possessed of value may either measure, or be measured by, every thing else possessed of value. When one commodity is exchanged for another, each measures the value of the other. If the quartern-loaf were sold for a shilling, it would be quite as correct to say, that a quartern-loaf measured the value of a shilling, as that a shilling measured the value of a quartern-loaf.

Use of Gold and Silver as a Standard for estimating the Relative Value of Commodities. — Proof of the Non-existence of an Abstract or Ideal Standard.

The quality of serving as a measure of value is, therefore, equally inherent in every commodity. But the slow degrees by which the precious metals change their value, renders them peculiarly well fitted for forming a standard by which to compare the values of other and more variable commodities. To this standard reference is almost always made in estimating the value of the products of every civilized country. We do not say that one man is worth a thousand acres of land, and that another is worth a thousand sheep; but we ascertain for how much gold or silver the land and the sheep would exchange, and then say that their proprietors are worth so much money. In this, however, there is certainly nothing mysterious. We merely compare the value of one commodity with the value of another; and as coin or money has been found to be the most convenient standard of comparison, the value of all other commodities is usually estimated in it.

It is obvious, from this statement, that the terms of the exchange of one commodity, or set of commodities, for another, may be adjusted, with reference to money, without any money being actually in the possession of either of the parties making the exchange. If a horse, for example, had commonly sold for ten pieces of silver, an ox for five pieces, and a sheep for one piece, it would mark their relative values to each other, and the animals might be exchanged on this footing without the intervention of money. The frequent recurrence of transactions of this kind seems to have given rise to the notion of an abstract or ideal standard of value. Thus, instead of saying that a horse is worth ten pieces of silver, an ox five pieces, and a sheep one piece, it has been contended that it might equally have been said that they were respectively worth ten points or units, five points or units, and one point or unit; and that, as the proportional values of commodities might be as clearly expressed in these arbitrary terms as in money, or any commodity possessed of real value, the use of the latter, as a standard, might be advantageously dispensed with, and a set of abstract terms adopted in its stead. This, however, is completely mistaking the nature and object of a standard. A standard is not intended to mark the known relations between different commodities, but to enable us easily to discover those which are unknown. Now, although the series of arbitrary terms may serve extremely well for the first of these purposes, it is utterly impossible that they can ever serve for the second. This, however, is exclusively the object of a standard; and it is quite plain that nothing can be used as such which is not possessed of the same properties as the things with which it is to be compared. To measure length, a standard must have length; to measure value, it must have value. The value of commodities is ascertained by separately comparing their cost with the cost of money, and we express their relation to each other by simply stating the result of our inquiries; that is, by mentioning the number of livres, of pounds, or of fractions of a pound, they are respectively worth. And, when any new commodity is offered for sale, or when any change is made in the cost of an old one, we ascertain their relation to the rest, by merely comparing them with a livre or a pound. It is plainly impossible, however, that we could have done this, had the terms livre, or pound, been purely arbitrary, and referable to no really valuable article. We might as well try to estimate distances by an imaginary inch, or an imaginary foot, as to estimate prices or values by an imaginary shilling, or an imaginary sovereign. When we say that an ox is worth five pounds and a sheep only one, we really mean no more than that, when an ox and a sheep are compared together, that is, when the one serves as a standard by which to estimate the value of the other, one ox is found to be worth five sheep. But, suppose that we wish to ascertain what is the relative value of some other commodity; of a pound of tea, for example; to oxen or sheep, of what use would it be to be told that one ox was worth five sheep, or that, when the value of an ox was represented by the imaginary term "five pounds," the value of a sheep was represented by the imaginary term "one pound?" It is not the relation between oxen and sheep, but the relation between these animals and tea, that we are desirous of learning. And, although this relation may be learned by comparing the cost of producing oxen and sheep with the cost of producing tea, or by ascertaining for how much of some other commodity an ox, a sheep, or a pound of tea will respectively exchange, it is obvious it could never be learned by comparing them with a set of arbitrary terms or symbols! It would not, in truth, be more absurd to attempt to ascertain it by comparing them with the hieroglyphics on an Egyptian sarcophagus. Nothing that will not exchange for something else, can ever be a standard, or measure of value. Commodities are always compared with commodities, and not with abstract terms. Men go to market with real values, and not with the signs of values in their pockets. And it is to something possessed of real worth, to the gold contained in a sovereign and not in the word sovereign, that they always have referred, and must continue to refer, in estimating value.

The following passage of Montesquieu has often been referred to in proof of the existence of an ideal standard: — "Les noirs de la côte d'Afrique ont un signe des valeurs sans monnoie; c'est un signe purement idéal fondé sur le degré d'estime qu'ils mettent dans leur esprit à chaque marchandise, à proportion du besoin qu'ils en ont; une certaine denrée, ou marchandise, vaut trois macutes; une autre, six macutes; une autre, dix macutes; c'est comme s'ils disoient simplement trois, six, dix. *Le prix se forme par la comparaison qu'ils font de toutes les marchandises entre elles:* pour lors, il n'y a point de monnoie particulière, mais *chaque portion de marchandise est monnoie de l'autre.*" (*Esprit des Loix*, livre xxii. cap. 8.)

But, instead of giving any support to the notion of an abstract standard, this passage might be confidently referred to in proof of its non-existence. Had Montesquieu said that the blacks determined the values, or prices, of commodities, by comparing them with the arbitrary term *macute*, the statement, though false, would have been at least in point. But he says no such thing. On the contrary, he states distinctly, that the relative values of commodities (marchandises) are ascertained by comparing them *with each other* (entre elles), and that it is merely the result of the comparison that is expressed in arbitrary terms.

So much for the weight to be attached to this statement, supposing it to be well founded. The truth is, however, that the term *macute* is not really arbitrary, and employed only to mark an ascertained proportion, but that it has a reference to, and is, in fact, *the name of an intrinsically valuable commodity.* "On a bien dit," says l'Abbé Morellet, "que ce mot macute étoit une expression abstraite et générale de la valeur, et cela est vrai au sens où nous l'expliquerons plus bas; mais on n'a pas remarqué que cette abstraction a été consequente et posterieure à l'emploi du mot macute pour signifier une *marchandise*, *une denrée réelle à laquelle on avoit longtems comparé toutes les autres.*

"Macute en plusieurs lieux de la côte d'Afrique, est encore le nom d'une certaine étoffe: '*Chez les negres de la côte d'Angola*,' dit le voyageur Angelo, '*les macutes sont des pièces de nattes d'une aune de long*'; Jobson dit aussi que les macutes sont *une espèce d'étoffe.*

"Les étoffes ont toujours été l'objet d'un besoin tres-pressant chez des peuples aussi barbares, depourvus de toute espèce d'industrie. Les nattes en particulier leur sont de la plus grande nécessité. Elles sont divisées en morceaux peu considerables et d'une petite valeur; elles sont très-uniformes dans leurs parties, et les premières qu'on a faites auront pu être semblables les unes aux autres, et d'une bonté égale, sous la même dénomination; toutes ces qualités les ont rendu propres à devenir la mésure commune des valeurs." — (*Prospectus d'un Nouveau Dictionnaire de Commerce*, p. 121.)

The following extract from Park's *Travels* gives an example of a similar kind: — "In the early intercourse of the Mandingoes with the Europeans, the article that attracted most notice was iron. Its utility in forming the instruments of war and husbandry made it preferable to all others; and iron soon became the measure (standard) by which the value of all other commodities was ascertained. Thus a certain quantity of goods, of whatever denomination, appearing to be equal to a bar of iron, constituted, in the trader's phraseology, a bar of that particular merchandise. Twenty leaves of tobacco, for instance, were considered as a *bar* of tobacco; and a gallon of spirits (or rather half spirits and half water) as a *bar* of rum; a bar of one commodity being reckoned equal in value to a bar of another commodity. As, however, it must unavoidably happen, that, according to the plenty or scarcity of goods at market, in proportion to the demand, the relative value would be subject to continual fluctuation, greater precision has been found necessary; and, at this time, the current value of a single bar of any kind is fixed by the whites at *two shillings sterling.* Thus, a slave, whose price is £15, is said to be worth 150 bars." (*Travels in the Interior of Africa*, 8vo edit., vol. i. p. 39.)

In common mercantile language, the giving of money for a commodity is termed *buying*, and the giving of a commodity for money, *selling*. *Price*, unless when the contrary is particularly mentioned, always means the value of a commodity rated in money.

Having thus endeavoured to explain the circumstances which led to the introduction of money, and to show what it really is, and what it is not, we shall now proceed to investigate the laws by which its value is regulated. It is chiefly from the prevalence of erroneous opinions on this subject, that the theory of money has been so much misunderstood.

CHAPTER II.

CIRCUMSTANCES WHICH REGULATE THE EXCHANGEABLE VALUE OF MONEY.

This branch of our subject naturally divides itself into two parts: — 1st. An inquiry into the principles which regulate the exchangeable value of money when the power to supply is not monopolized; and, 2d. An inquiry how far these principles are liable to be affected by the operation of monopoly.

Cost of Production regulates the Value of Money, when the Power of Supply is not monopolized.

I. There does not now seem to be much room for difference of opinion respecting the circumstances that regulate the value of the precious metals, and their distribution throughout the various countries of the globe. Bullion is a commodity, on the production of which competition operates without restraint. It is not subjected to any species of monopoly, and its value in exchange must, therefore, be entirely regulated by the cost of its production, that is, by the quantity of labor required to bring a given quantity of it to market.

If, in every stage of society, it required precisely the same quantity of labor to produce a given quantity of bullion, its value would be *invariable;* and it would constitute a standard by which the variations in the exchangeable value of all other commodities could be *correctly* ascertained. But this is not the case either with bullion or any thing else. And its value fluctuates in the same way as that of other commodities, not only according to the greater or less productiveness of the mines from which it is extracted, but also according to the comparative skill of the miners, and the improvements of machinery.

M. Say has, in his work on *Political Economy*, a chapter "De la valeur que la qualité d'être monnoie ajouté à une marchandise." But a little reflection will convince us, that M. Say is mistaken, and that the circumstance of the precious metals being used as money cannot affect their value. M. Say reasons on the common hypothesis, that an increase of demand is always productive of an increase of value, an assumption totally at variance with principle and fact. Value depends upon the cost of production; and it is obvious that the cost of producing a commodity may be diminished, whilst the demand for it is increasing. This is so plain a proposition, as hardly to require to be substantiated by argument. And a reference to the case of cotton goods, the price of which has, notwithstanding the vast increase of demand, been constantly on the decline during the last half century, is enough to convince the most skeptical of the extreme erroneousness of M. Say's conclusion. But, with regard to the particular case of the precious metals, it is clear the capital devoted to the production of gold and silver must yield the common and ordinary rate of profit; for, if it yielded more than that rate, there would be an influx of capital to the mining business; and, if it yielded less, it would be withdrawn, and vested in some more lucrative employment. And hence, though the demand for gold and silver should, from the adoption of some other commodity as an instrument of exchange, gradually become less, the value of the precious metals would not, on that account, be reduced. A smaller supply would, indeed, be annually brought to market, and a portion of the capital formerly engaged in the mining, refining, and preparing of the metals, would be disengaged; but as the whole stock thus employed yielded only the average rate of profit, the portion which is not withdrawn must continue to do so; or, which is the same thing, gold and silver must still continue to sell for the same price. It is no doubt true, that where mines are, as they almost always are, of different degrees of productiveness, any great falling off in the demand for bullion might, by rendering it unnecessary to work the inferior mines, enable the proprietors of the richer mines to continue their work, and to obtain the ordinary rate of profit on their capitals, by selling bullion at a reduced price. In this case the value of bullion would be really diminished; but it would be diminished, not because there was a falling off in the demand, but because there was a *greater facility of production.* On the other hand, an increased demand for bullion, whether it arose from the general suppression of paper money, or from a greater consumption of gold and silver in the arts, or from any other cause, would not, unless it were necessary, in order to procure the increased supply, to have recourse to less productive mines, be accompanied by any rise of price. If the mines from which the additional supplies were drawn were less productive than those already wrought, more labor would be necessary to procure the same quantity of bullion, and, of course, its price would rise. But, if no such increase of labor was required, its price would remain stationary, though a thousand times the quantity formerly required should be demanded.

After gold and silver have been brought to market, their conversion into coin or manufactured articles, depends entirely on a comparison of the profits that may be derived from each operation. No bullion would be taken to the mint if it would yield a greater profit by sending it to a silversmith; and no silversmith would work up bullion into plate, if he could turn it to greater account by converting it into coin. The value of bullion and coin must, therefore, in countries where the expenses of coinage are defrayed by the state, nearly correspond. When there is any unusual demand for bullion in the arts, coin is melted down; and when, on the contrary, there is any unusual demand for coin, plate is sent to the mint, and the equilibrium of value maintained by its fusion.

It appears, therefore, that whilst competition operates without restraint on the production of gold and silver, they are, like all other things, produced under similar circumstances, valuable only in proportion to the cost of their production; that is, in proportion to the quantity of labor necessarily expended in bringing them to market. And hence, while they constitute the currency of the commercial world, the price of commodities, or their value compared with gold or silver, will vary, not only according to the variations in the exchangeable value of the commodities themselves, but also according to the variations in the value of the gold or silver with which they are compared.

The Proportion between the Supply and Demand regulates the Value of Money, when the Power of Supply is monopolized.

II. But if competition were not allowed to operate on the production of the precious metals, if they could be monopolized and limited in their quantity, their exchangeable value would no longer be regulated by the same principles. If, after the limitation, they still continued to be used as money, and if, in consequence of the improvement of society, manufactured commodities and valuable products should be very much multiplied, the exchanges which this *limited* amount of money would have to perform would be proportionably increased; and, of course, a proportionably smaller sum would be appropriated to each particular transaction; or, which is the same thing, money prices would be diminished. Whenever the supply of money is *fixed*, the amount of it, given in exchange for commodities, must *vary inversely as the demand, and can be affected by nothing else.* If double the usual supply of commodities be brought to market in a country with a limited currency, their money price will be reduced a half; and if only half the usual supply be brought to market, it will be doubled; and this, whether the cost of their production be increased or diminished. Produce is not then exchanged for money, on the ground that it is a commodity capable of being advantageously used in the arts, or that an equal quantity of labor has been expended on its production; but because it is the universal equivalent used by the society, and that, as such, it will be willingly received for the produce belonging to others. The remark of Anacharsis, the Scythian, that gold and silver coins seemed to be of no use but to assist in numeration and arithmetic (Hume's *Essay on Money*), would, if confined to a strictly *limited currency*, be as just as it is ingenious. Sovereigns, livres, dollars, &c., would then really constitute mere tickets or counters, for computing the value of property, and transferring it from one individual to another. And as small tickets, or counters, would serve for this purpose quite as well as large ones, it is unquestionably true, that a debased currency may, by first reducing, and then limiting its quantity, be made to circulate at the value it would bare if the power to supply it were unrestricted, and if it were possessed of the legal weight and fineness; and, by still further limiting its quantity, it might be made to pass at any higher value.

Thus it appears, that whatever may be the *material* of the money of any country, whether it consist of gold, silver, copper, iron, leather, salt, cowries, or paper, and however destitute it may be of all *intrinsic* value, it is yet possible, by *sufficiently limiting its quantity*, to raise its value in exchange to any conceivable extent.

Suppose the money of Great Britain consists of 50,000,000 or 60,000,000 of one pound notes, and that we are prevented from increasing or diminishing this sum, either by issuing additional notes or coins, or by withdrawing the notes already in circulation; it is obvious that the quantity of commodities for which such notes would exchange, would increase or diminish precisely according to the increase or diminution of the commodities brought to market. If we suppose that ten times the amount of products that were offered for sale when the limitation of the currency took place, are offered for sale ten or twenty years afterwards, and that the rapidity of circulation has continued the same, prices will have fallen to *one-tenth* of their former amount; or, which is the same thing, the exchangeable value of the paper money will have increased in a tenfold proportion; and, on the other hand, if the products brought to market had diminished in the same proportion, the exchangeable value of the paper money will have been equally reduced.

The principles we have now stated are of the utmost importance to a right understanding of the real nature of money. Previously to the publication of Mr. Ricardo's *Principles of Political Economy*, every writer of authority maintained, that the value of money depended entirely on the relation between its amount and the demand. But this is true only of a gold or silver currency when its quantity is *limited*, and of a currency formed of materials having little intrinsic worth, as paper, when its quantity is *limited*, and it is not made convertible, at the pleasure of the holder, into some more valuable commodity, the production of which is under no restraint. It is obvious, indeed, without any reasoning on the subject, that the value of a currency that costs little or nothing, can only depend on the proportion which its amount bears to the commodities brought to market, or to the business it has to perform. And wherever a currency of this kind, or a limited gold currency, is in circulation, the common opinion, that the prices of commodities are regulated exclusively by the proportion between the quantity of them brought to market, and the supply of money, and that any considerable increase or diminution of either will proportionally affect prices, is quite correct. It is altogether different, however, with a currency consisting of gold or silver, or of any other commodity possessed of considerable value, and the supply of which may be increased to an unlimited extent by the operation of unrestricted competition.

The fluctuations in the supply of, and demand for, such money, have no permanent effect on its exchangeable value; this depends exclusively on the comparative *cost of its production.* If a sovereign commonly exchanges for a couple of bushels of wheat, or a hat, it is because the same labor is required for its production as for that of either of these commodities; while, if with a limited and inconvertible paper money, they exchange for a one pound note, it would be because such was the proportion which, as *a part of the mass of commodities offered for sale, they bore to the supply of paper or money in the market.* This proportion would, it is evident, be not only immediately, but permanently, affected by an increase or diminution either of paper or commodities. But the relation which commodities bear to a freely supplied metallic currency, could not be permanently changed, except by a change in the cost of producing the commodities or the metals.

Our readers must not conceive from what is now stated, that we mean to contend that the value of gold or silver is never affected by variations of supply and demand. Such an opinion would be altogether erroneous. At the same time it must be admitted, that their value is much less affected by such variations, than that of almost any other commodity. Their great durability precludes the possibility of any sudden diminution of their quantity, while the immense surface over which they are spread, and the various purposes to which they are applied, prevent any unusual productiveness of the mines from speedily lowering their value. An extraordinary event, such as the discovery of America, or the establishment of an intercourse between a country where bullion bore a high value, and one where its value, from the greater facility of its production, was comparatively low, would, by causing a sudden exportation and importation, raise its value in the one country, and sink it in the other. But such events must necessarily be of very rare occurrence. And although the different productiveness of the mines, to which, in the progress of society, recourse must be had, and the successive improvements in the art of mining and working metals, must render the value of gold and silver very different at distant periods, it is abundantly uniform to secure us against all risk of sudden and injurious fluctuations.

Such are the circumstances which regulate the value of money ; first, when the power to supply it is not subjected to any species of monopoly ; and, second, when it is monopolized and limited. In the former case, its value depends, like that of all other commodities, on the cost of its production ; while, in the latter case, its value is totally unaffected by that circumstance, and depends entirely on the extent to which it has been issued, compared with the demand.

The conclusions deducible from the fundamental principle we have thus endeavoured to establish, are of the utmost importance. A metallic currency, on the coinage of which a high seignorage or duty was charged, and a paper currency not convertible into the precious metals, were occasionally seen to circulate at the same value with a metallic currency of full weight, and which had been coined at the expense of the state. But no rational or consistent explanation of these apparently anomalous results could be given until the effects produced by limiting the supply of money had been accurately appreciated. Now, however, that this has been done, all these difficulties have disappeared. The theory of money has been perfected, and we are enabled to show what, under any given circumstances, would be the effect of imposing a seignorage, or of issuing an inconvertible paper currency.

Seignorage, strictly speaking, means only the clear revenue derived by the state from the coinage ; but it is now commonly used to express every deduction made from the bullion brought to the mint to be coined, whether on account of duty to the state, or of the expense of coinage (properly *brassage*). We always use the phrase in its more enlarged sense

CHAPTER III.

A MODERATE SEIGNORAGE ON COINED MONEY SHOWN TO BE ADVANTAGEOUS. — PRINCIPLES WHICH SHOULD REGULATE ITS AMOUNT.

Reasons why a Seignorage should be imposed on Coined Money.

THE government of almost every country has retained the power of coining exclusively in its own hands. In antiquity this privilege was reserved merely to prevent the confusion that must attend the circulation of coins of different denominations, were individuals permitted to issue them at pleasure, and to give the public greater security, that the stamp should truly indicate the weight and fineness of the metal. (Le Blanc, *Traité Historique des Monnoyes de France*, p. 90, ed. Amst. 1692.) But in more modern times it has been used, not only as a means of affording a better guarantee to the public, but also of increasing the revenues of the state. As to the expediency of this, however, much difference of opinion has existed. It has been contended that the state ought in no circumstances to charge any duty on coined money; and that the expenses of the mint should always be defrayed by the public. In this opinion we cannot concur; and it appears to us that the reasoning of Dr. Smith, in favor of a moderate seignorage, is quite unanswerable. No good reason has yet been given why those who want coins should not have to pay the expenses of manufacturing them. Coinage, by saving the trouble and expense attending the weighing and assaying of bullion, indisputably adds to the value of the precious metals. It renders them fitter to perform the functions of a circulating medium. A sovereign is of greater value than a piece of pure unfashioned gold bullion of the same weight; and for this plain reason, that while it is equally well adapted with the bullion for being used in the arts, it is better adapted for being used as money, or in the exchange of commodities. Why, then, should government be prevented from charging a seignorage, or duty on coins, equal to the expenses of the coinage, or, which is the same thing, to the value which it adds to the bullion? Those who contend that the state ought to defray the expense of the coinage, might, with equal cogency of reasoning, contend that it ought to defray the expense of manufacturing gold and silver teapots, vases, &c. In both cases the value of the raw material, or bullion, is increased by the cost of workmanship. And it is only fair and reasonable, that those who carry bullion to the mints, as well as those who carry it to the jewellers, should have to pay the expenses necessarily attending its conversion into coin.

But there are other reasons why a seignorage, to this extent at least, ought to be exacted. Wherever the expenses of coinage are defrayed by the state, an ounce of coined gold or silver, and an ounce of gold or silver bullion, must be very nearly of the same value. And, hence, whenever it becomes profitable to export the precious metals, coins, in the manufacture of which a considerable expense has been incurred, are sent abroad indifferently with bullion. It has, indeed, been attempted, by prohibiting the exportation of coins, to prevent the loss that may thus be occasioned; but these efforts have proved singularly ineffectual, and have, indeed, been abandoned in this and most other countries. Admitting, however, that it were possible, which most certainly it is not, to prevent, or at least, materially limit, the clandestine exportation of coins, it is conceded on all hands to be quite nugatory to attempt to prevent their conversion into bullion. In this there is almost no risk. And the security with which their fusion can be effected, and the trifling expenses attending it, will always enable them to be melted down and sent abroad whenever there is any unusual foreign demand for the precious metals. This exportation would, however, be either prevented or materially diminished by the imposition of a seignorage or duty, equal to the expense of the coinage. The coins being, by this means, rendered more valuable than bullion, would be kept at home in preference: and if, as Dr. Smith has observed, it became necessary on any emergency to export coins, they would, most likely, be reimported. Abroad, they would be only worth so much bullion, while at home they would be worth this much, and the expense of coinage besides. There would, therefore, be an obvious inducement to bring them back, and the supply of currency would be maintained at its proper level, without its being necessary for the mint to issue fresh coins.

Besides relieving the country from the useless expenses attending the coinage of the money exported to other countries as an article of commerce, the imposition of a moderate seignorage would either totally prevent, or at least lessen, that fusion of the heavier coins, which always takes place whenever a currency becomes degraded or deficient in weight. Previously to the great recoinage in 1773, the quantity of bullion contained in the greater number of the gold coins in circulation was reduced nearly two per cent. below the mint standard; and, of course, the price of gold bullion, estimated in this degraded currency, rose two per cent., or from £3 17*s.* and 10½*d.*, its mint price, to £4. This, however, was too minute a difference to be taken into account in the ordinary business of buying and selling. And the possessors of coins fresh from the mint, or of full weight, not obtaining more produce in exchange for them than for the lighter coins, sent the former to the melting-pot, and then sold them as bullion. But it is easy to see that this fusion would have been effectually prevented had the coins been loaded with a seignorage of two per cent. The heavy coins could not then have been melted without losing the value given them by the seignorage; and this being equal to the excess of the market price of bullion above the mint price, nothing would have been gained by the melters. Had the seignorage been less than the average degradation of the coin, or two per cent.; had it, for example, been only one per cent., all those coins whose value was not more than one per cent. degraded below their mint standard, might have been melted; but if the seignorage had exceeded two per cent. no coins whatever could have been melted until the degradation had increased to the same or a greater extent.

This reasoning proceeds throughout on the supposition that the coins on which the seignorage is charged are not issued in excess. If they were, the above-mentioned consequences would not follow. Their too great multiplication might sink them even below their value as bullion, and occasion their immediate fusion or exportation. So long, however, as the state only coins the bullion brought to the mint by individuals, there is no risk of this happening. No one, we may depend upon it, will ever carry bullion to that establishment, and pay the expenses of its coinage, unless the coins be thereby rendered so much more valuable than the unfashioned metal.

Should the government choose to buy bullion, and coin money on its own account, it might, by a little attention, easily avoid all over-issue. Suppose the seignorage were two per cent., then any given weight of coins of the mint standard ought, provided the currency be not redundant, to purchase two per cent. more than the same weight of bullion. So long, therefore, as this proportion is preserved between coined money and bullion, it shows that the proper supply of currency has been issued. If the value of the coins decline below this limit, too many of them must have got into circulation; and, if, on the contrary, their value increase, the supply is too limited, and an additional quantity may be advantageously issued.

If the Supply of Coins could be sufficiently limited, a high Seignorage might be exacted.

It is easily seen, from the principles already established, that it is not necessary that the charge for seignorage should be limited to the mere expenses of coinage. It may, without injury to any individual, be carried considerably farther. Provided the amount of the coins on which a seignorage is imposed, be limited to the amount that previously circulated in the country, its imposition, to whatever height it might be carried, would not effect their exchangeable value. The state having the exclusive privilege of coining, no additional supply of money could be brought to market. And supposing the business of society to continue the same; that is, supposing the same quantity of commodities are brought to market, and exchanged for the same amount of coins of the same denomination, it is clear prices could not be in any way affected. Invariability of value is the great desideratum in money; and provided this be maintained, as it always may be, by properly limiting the quantity in circulation, it is of no consequence whether the weight of the coins be increased or diminished. A hat that had previously to the imposition of the seignorage sold for a sovereign would still fetch one. The sovereign, it is true, has been diminished in size; but as its value is increased in proportion to this diminution, and as small coins are equally well adapted to serve every purpose of a circulating medium as those that are larger, society would not suffer any inconvenience from that circumstance. It is certain, indeed, that if the monopoly were not rigorously enforced, or if individuals were permitted to issue supplies of money from private mints, free from the charge of seignorage, the increase of quantity would speedily sink the value of the whole coins in circulation to a level with the cost of those produced on the lowest terms; so that the coins on which a high seignorage had been charged would not be more valuable than those exempted from that charge. But, wherever the supply of money is limited, and competition excluded, this principle ceases to operate, and its value is then dependent upon the proportion which the total quantity in circulation bears to the total demand. This principle is further elucidated in a very able article on seignorage, by Mr. Tooke, printed in the *Appendix* (p. 180) *to the Lords' Report of* 1819.

Difficulty of limiting sufficiently the Supply of Coins, and Necessity of imposing only a moderate Seignorage.

It must not, however, be concealed, that if it were attempted to charge a very high seignorage, it would be extremely difficult to limit the supply of coins. The inducement to counterfeit money would, under such circumstances, be very greatly increased, while the chances of detection would be very much diminished. It would not then be necessary, in order to derive a profit from counterfeit coins, that they should be manufactured of a baser metal. The saving of a heavy charge on account of seignorage might of itself afford a sufficient profit; and this could be derived, though the metal contained in the forged coins were of the standard purity. But, though it might, for this reason, and most probably would, be quite impossible to limit the supply of currency, and consequently to sustain its value, were an exorbitant seignorage charged, the same difficulty would not stand in the way of a moderate one. The nefarious business of counterfeiting could not be carried on, did it not yield a sufficient premium to the forgers to indemnify them for the risks and odium to which they are exposed. A seignorage less than this would be no encouragement to the issue of counterfeit coins. And though it might be difficult to form any very precise estimate of what this premium might be, it is pretty certain it would not be under from four to five per cent.

Amount of the Gold Coinage since the Accession of James II.

It appears from an account inserted in the Appendix to the Report drawn up by the Lords in 1819, that new gold coins, of the value of £74,501,586 had been issued by the mint between the 1st January, 1760, and the 13th April, 1819. To this sum we have to add nearly fifty millions since issued, making in all an issue of about one hundred and twenty-four, or one hundred and twenty-five millions of gold coins since the accession of George III. But the seignorage was remitted in the reign of Charles II.; and it appears from the accounts published by Mr. Ruding and others, that £28,172,149 of new gold coins were issued in the period between the accession of James II. (1685) and the demise of George II.; so that, in all, upwards of one hundred and fifty-two millions of gold coins have been coined at the expense of the state, and issued since the remission of the seignorage. We shall be considerably within the mark, if we estimate the average annual expense attending this coinage at £12,000. Lord Liverpool states, that the entire expense of the mint, from 1777 to 1803, amounted to £488,441, which gives an average expenditure of £18,786 a year. (Liverpool *On Coins*, p. 156.) And, on this supposition, it will be found that the expense of the coinage of gold only has amounted, during the one hundred and fifty-two years which have elapsed since the accession of James II., to £1,824,000. But, if a low seignorage of no more than three or four per cent. had been charged on the gold coins, it would have produced four and a half or six millions; a sum which might have been collected without injury to any individual, and which, besides defraying the entire expenses of the coinage, would have left a considerable surplus revenue.

Expense of the Coinage of Gold and Silver.—History of Seignorage in England.

In his evidence before the Lords' Committee in 1819, Mr. Mushet stated, that, with the improved machinery now in use in the mint, gold coin could be manufactured for about 10*s.* per cent. (*Minutes of Evidence*, p. 207.) And the expense of the manufacture of the silver coin may, we believe, be taken at about three times as much, or one and a half per cent. In France the coinage of gold costs 0·29 per cent., and silver 1·50 per cent.; in Russia the gold costs 0·85, and the silver 2·95 per cent. (Storch, tom. vi., p. 74.)

The precise period when a seignorage began to be charged upon English silver coins has not been ascertained. It must, however, have been very early. Mr. Ruding mentions, that in a mint account of the 6th Henry III., one of the earliest he had met with, the profit on £ 3,898 0*s.* 4*d.* of silver coined at Canterbury, is stated to be £ 97 9*s.*, being exactly 6*d.* a pound, of which the king had £ 60 18*s.* 3⅓*d.*, and the bishop the residue. (*Annals of the British Coinage*, vol. i., p. 179, 4to. ed.) In the 28th Edward I. the seignorage amounted to 1*s.* 2½*d.* per pound: 5½*d.* being allowed to the master of the mint, to indemnify him for the expenses of coinage, and 9*d.* to the crown as its profit. Henry VI. increased the master's allowance to 10*d.* and 1*s.* 2*d.*, and the king's to 1*s.* and 2*s.* In the reign of Edward IV. the seignorage varied from 4*s.* 6*d.* to 1*s.* 6*d.* It was reduced to 1*s.* in the reign of Henry VII.; but was prodigiously augmented in the reigns of his successors, Henry VIII. and Edward VI., whose wild and arbitrary measures produced, as will be afterwards shown, the greatest derangement of the currency. During the lengthened reign of Elizabeth, the seignorage varied from 1*s.* 6*d.* to 2*s.* per pound; at which sum it continued, with very little variation, until the 18th of Charles II. (1666), when it was totally remitted.

From this period down to 1817 no seignorage was charged on the silver coin; but a new system was then adopted. Silver having been underrated in relation to gold in the mint proportion of the two metals fixed in 1718, heavy silver coins were withdrawn from circulation, and gold only being used in all the larger payments, it became, in effect, what silver had formerly been, the standard of the currency. The act of 56th George III., regulating the present silver coinage, was framed, not to interfere with this arrangement, but so as to render silver entirely subsidiary to gold. For this purpose it is made legal tender only to the extent of 40*s.*; and 66*s.* instead of 62*s.* are coined out of a pound of troy, the 4*s.* being retained as a seignorage, which, therefore, amounts to $6\frac{14}{31}$ per cent. The power to issue silver is vested exclusively in the hands of government; who have it, therefore, in their power to avoid throwing too much of it into circulation, and, consequently, to prevent its fusion, until the market price of silver shall have risen to above 5*s.* 6*d.* an ounce.

This arrangement was censured in the debates on the question of returning to cash payments in 1819. It was contended, that the overvaluation of silver with respect to gold would render it the interest of every debtor to discharge his debts with silver, and that the gold coins would in consequence be driven from circulation, and exported to other countries. The result has shown that this opinion was altogether erroneous. Debtors cannot discharge their debts by silver payments, for it is only legal tender to the extent of 40*s.*; and no creditor can be compelled, or would be disposed to take it in payment of a larger debt, except at its real value. Those who wish for a further elucidation of this subject, may refer to Mr. Mushet's evidence in the *Appendix to the Lords' Report* "*On the Expediency of the Bank's resuming Cash Payments*," where it is discussed at great length, and in the most able manner.

In the 18th of Edward III., the period when we begin to have authentic accounts of the gold coinage, a pound troy of gold bullion was coined into florins, of the value of £15. Of this sum only £13 16*s.* 6*d.* were given to the person who brought the bullion to be coined: £1 3*s.* 6*d.* being retained as seignorage, of which 3*s.* 6*d.* went to the master, and £1 to the king. But it appears, from the mint indentures, that the seignorage on the coinage of nobles for the same year amounted to only 8*s.* 4*d.* And, from this remote period to the accession of the Stuarts, with the exception of the coins issued in the 4th and 5th Edward IV. and the 34th, 36th, and 37th Henry VIII., the total charge of coining a pound weight of gold bullion seldom exceeded 7*s.* or 8*s.* money of the time. In the 2d James I., a pound weight of gold bullion was coined into £40 10*s.*; a seignorage of £1 10*s.* being deducted, 6*s.* 5*d.* of which went to the master, and £1 3*s.* 7*d.* to the crown. The seignorage on gold was remitted at the same time (18th Charles II.) with the seignorage on silver, and has not since been revived. In the tables annexed to this article, the reader will find a detailed account of the amount of the seignorage and its fluctuations in different periods.

As the regulation of the seignorage then depended entirely on the will of the sovereigns, we need not be surprised at the variations in its amount at different periods, or that it should have fluctuated according to their necessities and caprices. It was, indeed, hardly possible that it should have been otherwise. Our ancestors were totally ignorant of the principle, by a strict adherence to which the imposition of a seignorage can alone be rendered advantageous. They considered it as a tax which might be increased and diminished at pleasure. And, far from taking any steps to limit the quantity of coin in circulation, so as to maintain its value, they frequently granted to corporate bodies, and even to individuals, the privilege of issuing coins, not subjected to a seignorage. (Ruding's *Annals of the Coinage*, vol. i., p. 185. When the right of seignorage was abolished, there was a pension, payable out of the profits derived from it, granted under the great seal, for twenty-one years, to Dame Barbara Villiers, which the legislature ordered to be made good out of the coinage duties imposed by that act. See Ruding, *in loco citato*, and Leake's *Historical Account of English Money*, 2d ed., p. 356.) No wonder, therefore, that it should have been considered as a most unjust and oppressive tax, and that its abolition should have been regarded as a very advantageous measure.

Remedy or Shere.

Besides the revenue arising from the seignorage, our kings formerly derived a small revenue from the *remedy* or *shere.* It having been found impossible to coin money corresponding in every particular of weight and purity, with a given standard, a small allowance is always made to the master of the mint, whose coins are held to be properly executed, provided their imperfections, whether on the one side or the other, do not exceed this allowance, or remedy. Its amount has varied very little since the riegn of Edward III.; having, during this long period, generally been one-eighth part of a *carat*, or 30 grains of pure gold per pound of gold bullion, and two pennyweights of pure silver per pound of standard silver bullion. By the law of 1816, the remedy for gold coins is fixed at 12 grains per lb. in the weight, and one sixteenth part of a carat in the fineness. The remedy for silver is the same as before.

It does not appear that our princes derived any considerable advantage from the *remedy* previously to the reign of Elizabeth. But she, by reducing the master's allowance for the expense of coinage from 1*s.* 2*d.* to 8*d.* obliged him to come as near as possible to the *lowest* limit allowed by the remedy. Had the coins been delivered to those who brought bullion to the mint by *weight*, the queen, it is plain, would have gained nothing by this device; but, in the latter part of her reign, and the first seventeen years of that of her successor, James I., they were delivered by *tale*, so that the crown saved, in this way, whatever additional sum it might otherwise have been necessary to pay the master for the expenses of coinage. In the great recoinage in the reign of William III., the profit arising from the remedy amounted to only 8*s.* on every hundred pounds weight of bullion; and the coinage is now conducted with so much precision, and the coins issued so near to their just weight, that no revenue is derived from this source.

Seignorage in France.

The continental princes have, we believe, without any exception, charged a seignorage on the coinage of money. In France this duty was levied at a very early period. By an ordinance of Pepin, dated in 1755, a pound of silver bullion is ordered to be coined into twenty-two pieces, of which the master of the mint was to retain *one*, and the remaining twenty-one were to be delivered to the merchant bringing the bullion to the mint. (Le Blanc, p. 87.) There are no means of ascertaining the amount of the seignorage taken by the successors of Pepin, until the reign of Saint Louis (1226–1270), who coined the *marc* of silver into 58 sols, while he only delivered 54 sols, 7 deniers, to the merchant; at this period, therefore, the seignorage amounted to a sixteenth part of the marc, or to $6\frac{1}{14}$ per cent. It was subsequently increased or diminished without regard to any fixed principle. In the great recoinage in 1726, it amounted, on the gold coin, to $7\frac{5}{16}$ per cent., and to $5\frac{6}{7}$ per cent. on silver. In 1729, the mint price, both of gold and silver, were augmented, and the seignorage on the former reduced to $5\frac{11}{20}$ per cent., and on the latter to $4\frac{1}{8}$ per cent. A further reduction took place in 1755 and 1771, when the seignorage on gold was fixed at $1\frac{4}{15}$ per cent., and on silver at $1\frac{7}{24}$ per cent. At this moment the seignorage in France hardly covers the expense of coinage, being only about $\frac{1}{3}$ per cent. on gold, and $1\frac{1}{2}$ per cent. on silver. (Necker, *Administration des Finances*, tom. iii., p. 8. — Dr. Smith has stated, vol. ii., p. 438, on the authority of the "*Dictionnaire des Monnoies*, par Abot de Bazinghen," that the seignorage on French silver coins, in 1775, amounted to about eight per cent. The error of Bazinghen has been pointed out by Garnier, in his translation of the *Wealth of Nations.*)

CHAPTER IV.

EXPENSE OF A CURRENCY CONSISTING OF THE PRECIOUS METALS.

Estimate of the Expense of a Metallic Currency.

THE imposition of a moderate seignorage has, however, but a very inconsiderable effect in reducing the expense of a metallic currency. This, which is much greater than is generally imagined, does not consist in the coinage, which is comparatively trifling, but in the great amount of gold and silver required for the purpose. If, for example, the currency of Great Britain consisted wholly of gold, it would amount to at least fifty millions of sovereigns; and if the customary rate of profit were six per cent., it would cost *three* millions a year. For had these fifty millions not been employed as money, it would have been vested in branches of industry, in which, besides affording employment to thousands of individuals, it would have yielded six per cent., or three millions a year, of net profit to its possessors. But this is not the only loss. The fifty millions would not merely be withheld from the great work of production, and the country deprived of the revenue derived from its employment, but it would be perpetually diminished. The wear and tear of the coins is by no means inconsiderable; and supposing the expenses of the coinage were defrayed by a moderate seignorage, the deficiency in the weight of the old worn coins must, on their being called in to be recoined, be made up by the public. There is, besides, a constant loss from shipwrecks, fire, and other accidents. When due allowance is made for these causes of waste, it would not, perhaps, be too much to suppose, that a country, which had fifty millions of gold coins in circulation, would have annually to import the hundredth part of this sum, or half a million of coins to maintain its currency at its proper level.

Thus it appears, that, were the customary rate of profit in Great Britain six per cent., it would cost 3½ millions a year to maintain fifty millions of gold coins in circulation. It is indeed true, that a reduction of the rate of profit would proportionally reduce the amount of this expense, though as the reduced expense would still bear the same proportion to the total income of the country that the higher expense did, the real cost of the currency would not be at all diminished. The case of France furnishes a still more striking example of the heavy charges attending the general use of a metallic currency. The amount of the gold and silver currency of that kingdom has been estimated by Necker at 2,200 millions of francs, and by Peuchet at 1,850 millions. (*Statistique Elémentaire de la France*, p. 473.) Now, supposing the lowest estimate to be the most correct, and taking the rate of profit at six per cent., this currency must cost France one hundred and eleven millions of francs a year, exclusive of the wear and tear and loss of the coins, which, being taken, as before, at the hundredth part of the entire mass, will make the whole annual expense amount to the sum of a hundred and twenty-two millions of francs, or to nearly *five millions* sterling. This heavy expense certainly forms a very material deduction from the advantages resulting from the use of a currency consisting entirely of the precious metals, and has doubtless been the chief cause why all civilized and highly commercial countries have endeavoured to fabricate a portion of their money of less valuable materials. It has not, however, been the only cause. It is obvious that were there nothing but coins in circulation, the conveyance of large sums from place to place to discharge accounts, would be a very laborious process; and that even small sums could not be conveyed without considerable difficulty. Of the substitutes, calculated alike to save expense and to lessen the cost of carriage, paper is in every respect the most eligible, and has been by far the most generally adopted. By using it instead of gold, we substitute the cheapest in the place of the most expensive currency; and enable society to exchange all the coins which the use of paper renders superfluous, for raw materials, or manufactured goods, by the use of which both its wealth and enjoyments are increased. It is also transferred with the utmost facility. Hence, since the introduction of bills of exchange, most great commercial transactions have been adjusted by means of paper only; and it has also been used to a very great extent in carrying on the ordinary business of society.

CHAPTER V.

PAPER MONEY. — PRINCIPLE ON WHICH ITS VALUE IS MAINTAINED.

Origin of Paper Money, and Principle on which Banking is carried on.

In the earliest periods, subsequent to the invention of writing and paper, the pecuniary engagements of individuals would be committed to the latter. This gives security to the creditor, that he shall be able to claim the full amount of his debts, and to the debtor, that he shall not be liable to any overcharge ; and avoids the differences which are sure to arise where the terms of contracts are not distinctly specified. But a very short time only would elapse before individuals, having written obligations from others, would begin to transfer them to their debtors ; and after the advantages derivable from employing them in this way had been ascertained, it was an obvious source of emolument for persons in whose wealth and discretion the public had confidence to issue their obligations to pay certain sums, in such a form as might fit them for performing the functions of a circulating medium in the ordinary transactions of life. No one would refuse to accept, as money, the promissory note or obligation of an individual of large fortune, and of whose solvency no doubt could be entertained. But as full value must have been originally given for the promissory note, it is clear that whilst its continuance in circulation could be no loss to the public, it would be a very great source of profit to the issuer.

Suppose, for example, that a merchant issues a promissory note for £10,000, he must, previously to putting it in circulation, either have received an equivalent sum of money, or of some sort of produce possessed of real value, or, which is by far the most common case, he must have advanced it to an individual who has given him security for its repayment with interest. In point of fact, therefore, the issuer has exchanged his *promise to pay* £10,000 for the profits to be derived from the employment of a real capital of that amount ; and as long as the promissory note, the intrinsic worth of which cannot well exceed a sixpence, remains in circulation, he will, supposing profits to be five per cent., receive from it a revenue of £500 a year. It is on this principle that the business of banking is conducted. A banker could make no profit were he obliged to keep dead stock or bullion in his coffers, equal to the amount of his notes in circulation. But if he be in good credit, a fourth or fifth part of this sum will perhaps be sufficient ; and his profits, after the expenses of the establishment, and of the manufacture of his notes, are deducted, will be measured by the *excess* of the profit derived from his notes in circulation, over that which he might have realized by employing the stock kept in his coffers to meet the demands of the public. "A bank would never be established, if it obtained no other profits but those derived from the employment of its own capital : its real advantage commences only when it employs the capital of others." (*Proposals for an Economical and Secure Currency*, p. 87.)

Limitation of Supply sufficient to sustain the Value of Bank Paper.

As no means have been devised to limit the supply of the promissory notes issued by private individuals, their value, it is plain, could not be maintained were the issuers to fall into discredit, or relieved from their promise to pay them. But it is otherwise with the promissory notes issued by the state, or by a company acting under its control. The quantity of such notes may be effectually limited ; and we have seen that, when this is the case, intrinsic worth is not necessary to a currency, and that, by properly regulating the supply of paper declared to be legal tender, its value may be sustained on a par with gold, or any other commodity. It was by acting on this principle of limitation, that the value of the paper of the Bank of England was maintained in the interval between the passing of the restriction act in 1797, and the commencement of bullion payments in 1820. No rational explanation of this circumstance, so much at variance with all the old theories of paper money, can be deduced from any other principle. The fact of their being depreciated never creates any indisposition on the part of the public to apply for accommodation to a bank whose notes are legal tender. The presenter of a bill for discount is indifferent whether the notes given in exchange for it are payable in specie or not.* His object, in resorting to the bank, is to exchange his promissory note for money ; that is, for paper that will be received in payment of his debts, or of whatever he may wish to purchase. It is, therefore, of no consequence to him, whether the issuers of paper have, by issuing an excess, depressed its value relatively to gold, or whether they have so restricted their issues as to sustain its value on a level with the value of that metal. These circumstances, it is true, affect the interests of all those classes whose incomes do not vary with the variations in the value of money ; but, inasmuch as the prices of goods rise and fall with the increase or diminution of paper, merchants, who are the principal demanders of discounts, are comparatively but little affected by its fluctuations. The presenter of a bill for £500 or £1,000 to a bank, has received it, if it have arisen out of a real commercial transaction, in lieu of a certain quantity of goods, which, at the then value of money, were worth £500 or £1,000 ; and it is this sum which, by presenting the bill to the bank, he wishes to obtain. If the value of money had been different, the price of the goods, and consequently the sum for which the bill was drawn, would also have been different. It is to this market value of money at the time that attention is exclusively paid in commercial transactions. When, in 1809, 1810, 1811, 1812, 1813, and 1814, Bank of England paper was depressed from excess, from ten to twenty-five per cent. below the value of bullion, the circumstance of an act of Parliament having declared, that it should be paid in cash at the restoration of peace, had as little effect in raising its value, as its depreciation had in diminishing the applicants for discounts. The truth is, that individuals never resort to a bank for paper money, unless they have immediate occasion for it. As soon as it has been obtained, they throw it upon the market, for whatever it will bring ; and as they purchased it on the same terms (for it is seldom that the value of money is materially affected in the short interval between the time when a bill is discounted and becomes due), they generally get as much for it, and perhaps more, than it cost. We shall immediately explain what constitutes the natural limit to the applications for discounts; but we have said enough to show that it has nothing to do with the convertibility of notes into cash.

Those who have recourse to a bank to obtain discounts of accommodation bills, consider, like the presenters of real bills, only the present value of money. Accommodation bills are never discounted, excepting in the view of immediately employing the money, either in the purchase of commodities, or of labor, or in the payment of debts; and, whether one pound notes be of the value of 10*s.* or 20*s.* is obviously of no consequence; inasmuch as the amount of the bill presented for discount is regulated accordingly.

The circumstance that country bank notes cease to circulate as soon as any suspicion is entertained of the solvency of their issuers, is nowise inconsistent with this principle. Country bank notes are exchangeable, at the pleasure of the holder, for Bank of England notes; but from the restriction in 1797 down to 1820, the latter not being exchangeable for any thing else, constituted the real standard of value. Hence, when a country bank lost credit, the circulation of its notes was stopped, from its being believed that it would be impossible to obtain Bank of England paper in their stead; or, in other words, that they would not exchange for that description of paper which constituted the real medium of exchange. But it is impossible to imagine, that this paper should itself be affected by a want of credit. Every one knew that it had no intrinsic worth; and as already shown, its value was regulated (and must, whenever it is not rendered exchangeable for a given quantity of some other commodity, continue to be exclusively regulated) by the amount in circulation compared with the demand.

It appears, therefore, that if there were perfect security that the power of issuing paper money would not be abused; that is, if there were perfect security for its being issued in such quantities, as to preserve its value relatively to the mass of circulating commodities nearly equal, the precious metals might be entirely dispensed with, not only as a circulating medium, but also as a standard to which to refer the value of paper.

Difficulty of limiting the Supply of Bank Paper, otherwise than by rendering it exchangeable for Gold or Silver.

Unfortunately, however, no such security can be given. This is a point, respecting which there can be no difference of opinion. We have it in our power to appeal to a widely extended and uniform course of experience; to the history of Great Britain, and of every other country in Europe, and to that of the United States; to show that no man, or set of men, have ever been invested with the power of making unrestricted issues of paper money without abusing it; or, which is the same thing, without issuing it in inordinate quantities. If the power to supply the state with paper money be vested in a private banking company, then to suppose that they should, by limiting their issues, endeavour constantly to sustain the value of paper, would be to suppose that they should be attentive only to the public interest, and neglect their own private interest. The re-enactment of the restriction act, would not have the least effect on the value of paper, provided its quantity were not at the same time increased. But who can doubt that, in such circumstances, it would be increased? Such a message would enable the Bank of England to exchange bits of engraved paper, not worth, perhaps, five shillings a quire, for as many, or the value of as many hundreds of thousands of pounds. And is it to be supposed, that the directors and proprietors of the Bank should not avail themselves of such an opportunity to amass wealth and riches? If government enable a private gentleman to exchange a bit of paper for an estate, will he be deterred from doing so by any considerations about its effect in sinking the value of the currency? In Loo Choo we might perhaps meet with such an individual, but if we expect to find him in Europe, we shall most likely be disappointed. Here we are much too eager in the pursuit of fortune to be at all influenced by such scruples. It is essential, therefore, that the issuers of paper money should be placed under some check or control; and the comparatively steady value of the precious metals, at once suggests that none can be so effectual as to lay them under the obligation of exchanging their notes, at the pleasure of the holder, for a *given and unvarying quantity* of gold or silver.

Proposition maintained by those who deny that Bank Paper can be depreciated.—Demand for Discounts depends on a Comparison between the Rate of Interest and the Rate of Profit.

It has, however, been contended, that there is a material difference between paper issued by government in payment of its debts, and that issued by a private banking company in discount of good bills. In regard to the former, it is admitted on all hands that it may be issued in excess; but in regard to the latter, it has been strenuously urged, that "notes issued only in proportion to the demand, in exchange for good and convertible securities, payable at specific periods, cannot occasion any excess in the circulation, or any depreciation." As all the arguments advanced by those who contended that the paper of Great Britain was not depreciated between 1797 and 1819, involve this principle, it may be worth while to examine it a little minutely.

In the first place, it may be observed, that the demand for discounts does *not* depend on the nature of the security required for their repayment, but on the rate of interest for which they may be obtained, compared with the ordinary rate of profit made by their employment. If an individual can borrow £10,000, £100,000, or any greater sum, at 4, 5, or 6 per cent., and if he can realize 7, 8, or 10 per cent. by its employment, it is evidently for his interest, and it would be for the interest of every other person similarly situated, to borrow to an unlimited extent. But a banking company, relieved of all obligation to pay its notes in cash, and not, of course, obliged to keep any unproductive stock or bullion in its coffers, would be able to issue its notes at the lowest possible rate of interest; and the demand for its paper would therefore be proportionally great.

"The interest of money," says Mr. Ricardo, "is not regulated by the rate at which the bank will lend, whether it be 5, 4, or 3 per cent., but by the rate of profit which can be made by the employment of capital, and which is totally independent of the quantity or of the value of money. Whether the bank lent one million, ten millions, or a hundred millions, they would not permanently alter the market rate of interest; they would alter only the value of the money which they thus issued. In one case, ten or twenty times more money might be required to carry on the same business than what might be required in the other. The applications to the bank for money, then, depend on the comparison between the rate of profit that may be made by the employment of it, and the rate at which they are willing to lend it. If they charge less than the market rate of interest, there is no amount of money which they might not lend; if they charge more than that rate, none but prodigals and spendthrifts would be found to borrow of them. We accordingly find that when the market rate of interest exceeds the rate of five per cent., at which the bank uniformly lends. the discount office is besieged with applicants for money; and, on the contrary, when the market rate is even temporarily under five per cent., the clerks of that office have no employment." (*Principles of Political Economy*, p. 511.)

From 1809 to 1815 inclusive, the period in which the value of our paper currency relatively to gold was lowest, the market rate of interest considerably exceeded the rate (five per cent.) at which the Bank of England and most of the country banks invariably lent. Although, therefore, the amount of paper currency had, in that interval, been very much increased, the applicants for fresh discounts continued as numerous as ever. And there seems no reason to doubt, had the directors not been apprehensive that, ultimately, they might have to pay their notes in specie, that the amount in circulation would have been very much increased; at least, such would certainly have been the case, had they acted to the full extent of their avowed opinion, that it was impossible to issue too much paper, or to reduce its value, by engrossing into the circulation such quantities as were issued in discount of good bills. The wants of commerce are altogether insatiable. Inconvertible paper money, provided the rate of interest at which bills are discounted be less than the market rate, can never be too abundant. As long as this is the case, million after million may be thrown upon the market. The value of the currency may be so reduced as to require a one pound note to purchase a quartern loaf; but the circumstance of its value being diminished in proportion to the increase of its quantity, would render the demand for additional supplies as great as ever.

Were the Bank of England to discover a process whereby sovereigns could be manufactured with the same facility as notes, it could not be disputed that it would be in her power to depreciate the value of gold, by making large issues of what had been produced at so very little cost. Now, in what respect would this fictitious case differ from the actual situation of the Bank, were the restriction act renewed and made perpetual? The

Bank would then be able, without check or control, to exchange her paper for landed property, manufactured goods, government securities, &c. But we have seen, that the value of this paper, like the value of gold, in the hypothetical case, depends entirely on the proportion which the supply bears to the demand; and, as the demand is not affected by an increase of quantity, for that increase, by diminishing its value, renders the larger quantity of as little efficacy as the smaller quantity, it is abundantly clear, that if the Bank lent at a sufficiently low rate of interest, there could be no limit to their issues.

Necessity of making Bank Notes payable in Gold or Silver.

On the whole, therefore, it is plain, whether the power of issuing paper be vested in the hands of a private banking company, or of government, that it must be placed under some efficient control, such as the obligation to pay in gold or silver. It is easy to discover the manner in which a check of this kind limits the issue of paper, and sustains its value. Whenever the Bank has issued so much paper as to sink its value relatively to bullion, its notes begin to return upon it, to have them exchanged for a higher value; and the Bank is, in consequence, obliged, to prevent the exhaustion of its coffers, to contract its issues, and raise its paper to a level with gold. An extremely small profit, or an extremely small depreciation of paper, as compared with gold or silver, is sufficient to make the holders of bank paper send it to be exchanged for those metals; and hence the value of bank notes convertible at pleasure into a *given and unvarying quantity* of gold or silver can never differ considerably from its value. The issues of the Bank of England were, for more than a century previously to 1797, limited in the manner now explained, and during that whole period they were hardly ever depreciated $\frac{1}{4}$ per cent., and never more than two per cent., and that but for a few days only.

Scheme for paying Notes in Gold Bars.

But though it be thus necessary, in order to avoid all sudden and injurious fluctuations in the value of paper, that it should be made exchangeable at the pleasure of the holder for gold or silver, it is not essential to this end that it should be made exchangeable for gold or silver coins. Previously to the resumption of specie payments by the Bank of England in 1821, she was obliged to give bars of assayed bullion in exchange for her notes, according to a plan suggested by the late Mr. Ricardo; and there can be no doubt that this obligation would have sustained the value of paper quite as effectually as it is sustained by the obligation to pay in coin of the legal weight and purity, at the same time that it would have saved the greater part of the heavy expense occasioned by the use of metallic money. But, how important soever, these were not the only considerations that had to be attended to. The discovery of means for the prevention, or at least diminution, of the forgeries to which the substitution of notes in the place of guineas had given rise, was indispensably necessary to the maintenance of Mr. Ricardo's plan; and notwithstanding all the efforts that have been made, this desideratum has not yet been supplied. Forgery in the larger description of notes, or in those for £5 and upwards, may with due precaution be prevented from becoming injuriously prevalent. But low notes, or those of the value of £1 or £2, having to circulate amongst the laboring classes, and in immense numbers, present facilities for the issue of spurious paper, which it has been found impossible materially to diminish. Hence, in 1821, the plan of paying in bars of bullion was abandoned, and the Bank of England recommended paying in specie. (It was intended to have been given in this place some account of the Bank of England, and of the provincial Banks; but as inquiries are at present, February 1837, in progress, which may throw considerable light on these establishments, and measures are believed to be in contemplation by which they may be materially affected, it has been judged better to postpone all notice of them to the article upon PAPER MONEY.)

CHAPTER VI.

WHETHER GOLD OR SILVER SHOULD BE ADOPTED AS THE STANDARD OF THE CURRENCY, OR WHETHER IT SHOULD CONSIST OF BOTH.

Impossibility of arbitrarily fixing the relative Value of Gold and Silver.— Overvaluation of Gold at the Mint the Cause of its being used in all considerable Payments in this Country.

As the value of gold and silver, or the cost of their production, is perpetually varying, not only relatively to other commodities, but also relatively to each other, it is impossible arbitrarily to fix their comparative value. Gold may now, or at any given period, be to silver as 14 or 15 is to 1; but were sovereigns and shillings coined in that proportion, the discovery of a gold or silver mine of more than the ordinary degree of productiveness, or the discovery of any abridged process, by which labor might be saved in the production of one of the metals, would derange this proportion. As soon, however, as the mint proportion between the different metals ceases to be the same with that which they bear to each other in the market, then it becomes the obvious interest of every debtor to pay his debts in the metal whose mint valuation is highest.

In 1718, in pursuance of the advice of Sir Isaac Newton, the value of the guinea was reduced from twenty-one shillings and sixpence to twenty-one shillings; the value of fine gold to fine silver was consequently rated, in our mint, at $15\frac{285}{1364}$ to 1, and both metals were declared to be legal tender in that proportion. But, notwithstanding this reduction, the guinea was still rated at a higher value, compared with silver, than it ought to have been. This higher value was estimated, by Lord Liverpool, to have been, at the time, equal to fourpence on the guinea, or to $1\frac{19}{31}$ per cent.;

and as the value of silver compared with gold, continued to increase during the greater part of last century, it afterwards became considerably greater. The over-valuation of gold, by making it for the interest of every one to pay his debts in it rather than in silver, made gold be used in all considerable payments, and was the cause that, during the long period from 1718 down to the late recoinage, no silver coins of the legal weight and fineness would remain in circulation. The silver currency consisted entirely of light, worn coins; and when, in 1797, the further coinage of silver was forbidden, the silver currency was very much debased. But, as it existed only in a *limited quantity*, it did not, according to the principle already explained, sink in its current value. Though debased, it was still the interest of debtors to pay in gold. If, indeed, the quantity of debased silver had been very great, or if the mint had issued such debased pieces, it might have been the interest of debtors to pay in such debased money. But its quantity being limited, it sustained its value; and gold was practically the real standard of the currency.

The act of 1774, declaring that silver should not be legal tender for any debt exceeding £25, *unless by weight according to the mint standard*, had not, as has been supposed, any effect in causing the general employment of gold as money, in preference to silver. For, to use the words of Mr. Ricardo, "this law did not prevent any debtor from paying any debt, however large its amount, in silver currency fresh from the mint. That the debtor did not pay in this metal was not a matter of chance, nor a matter of compulsion, but wholly the effect of choice. It did not suit him to take silver to the mint, but it did suit him to take gold thither. It is probable that if the quantity of this debased silver in circulation had been enormously great, and also a legal tender, that a guinea would have been, as in the reign of William III., worth thirty shillings; but it would have been the debased shilling that had fallen in value, and not the guinea that had risen." (*Principles of Political Economy*, p. 520.)

Contrary Effect produced by the Overvaluation of Silver in the French Mint.

In France a different valuation of the precious metals had a different effect. The louis d'or, which, previously to the recoinage of 1785, was rated in the mint valuation at 24 livres, was really worth 25 livres, 10 sols. Those, therefore, who chose to discharge the obligations they had contracted, by payments of gold rather than of silver, plainly lost 1 livre, 10 sols on every sum of 24 livres. In consequence very few such payments were made, gold was nearly banished from circulation, and the currency of France became almost exclusively silver. (Say, tom. i. p. 393.) In 1785, a sixteenth part was deducted from the weight of the louis d'or, and since that period the value of the precious metals, as fixed in the French mint, has more nearly corresponded with the proportion which they bear to each other in the market. Indeed, it was stated, in evidence before the Committee of the House of Commons in 1819 (*Report*, p. 192), that the difference between the mint and market proportions of gold and silver at Paris in 1817 and 1818, had not exceeded from one tenth to one fourth per cent. There is, however, no reason to presume that this coincidence, which must have been in a great degree accidental, can be maintained under any arbitrary system. To insure the indifferent use of gold and silver coins in countries where they are both legal tender, their mint values would require to be every now and then adjusted, so as to correspond with their real values. But as this would obviously be productive of much trouble and inconvenience, the preferable plan undoubtedly is to make only one metal legal tender, and to allow the worth of the other to be adjusted by the competition of the sellers and buyers.

The absurdity of employing two metals as legal tender, or as a standard of value, was unanswerably demonstrated by Mr. Locke and Mr. Harris, and has been noticed by every subsequent writer; but so slow is the progress of improvement, that it was not till the year 1816 that it was enacted that gold only should be legal tender for all sums exceeding 40*s*.

Silver preferable to Gold as a Standard. — A Gold and Silver Currency equally valuable.

Whether, however, gold should have been adopted as the standard of exchangeable value, in preference to silver, is a question not of so easy solution, and on which there is a great diversity of opinion. Mr. Locke, Mr. Harris, and Mr. Ricardo, are of opinion that silver is better fitted than gold for a standard; whilst Dr. Smith, although he has not explicitly expressed himself, appears to think that gold ought to be adopted in preference. This opinion has been very ably supported by Lord Liverpool, in his valuable work *On the Coins of the Realm;* and his reasonings having received the approbation of Parliament, and gold having been made legal tender, all attempts to alter this arrangement ought to be opposed.

Whether gold or silver be adopted as the standard of the currency, does not affect its total cost or value; for, the quantity of metal employed as money, or the quantity of metal for which paper is the substitute, is always inversely as the value or cost of such metal. When gold is the standard, fourteen or fifteen times less of it than of silver is required; or, which is the same thing, if the denomination of a pound be given to any *specific weight* of gold or silver, fifteen times more of such silver pounds will be required to serve as currency, fifteen to one being about the proportion which gold bears in value to silver. Hence the expense of a gold or silver currency is identical. Gold being too valuable in proportion to its bulk, to be coined into pieces of the value of a shilling or a sixpence, the subsidiary currency necessary in small payments, should be overvalued, and issued only in limited quantities, as is the case with the present silver coinage.

Were a seignorage charged on the gold coins, paper, it is obvious, might be depreciated to the full extent of that seignorage, before it would be the interest of the holders to demand coin for the purpose of exportation, and consequently before the check of specie payments could begin to operate. But, even with such a seignorage, the risk of paper being depreciated, might be obviated, by making it obligatory on the Bank to pay their notes, either in bullion, at the mint price of £3 17*s*. 10½*d*. an ounce, or coin, at the pleasure of the holder. A regulation of this kind could not be justly considered as imposing any hardship on the Bank; for it is plain, that no bullion would be demanded from her, except when, by the issue of too much paper, its value had been sunk below the standard.

CHAPTER VII.

STANDARD OF MONEY.—DEGRADATION OF THE STANDARD IN ITALY, FRANCE, GREAT BRITAIN, AND OTHER COUNTRIES.—PERNICIOUS EFFECTS OF THIS DEGRADATION.

Standard of Money.—Purity of English Coins.

By the standard of money is meant the degree of the purity or fineness of the metal of which coins are made, and the quantity or weight of such metal contained in these coins. Twelve ounces of the metal, of which standard English silver coins are made, contains 11 ounces 2dwts. fine, and 18dwts. alloy; and a pound troy of this standard silver, or pound sterling, contains 66 shillings, or $\frac{20}{66}$ parts of $\frac{11}{12}$ of a pound troy of fine silver, that is, 1614 $\frac{36}{66}$ grains. (The carat is a bean, the fruit of an Abyssinian tree, called Kuara. This bean, from the time of its being gathered, varies very little in its weight, and seems to have been, in the earliest ages, a weight for gold in Africa. In India it is used as a weight for diamonds, &c. Bruce's *Travels*, vol. v. p. 66.) From the 43 of Elizabeth down to 1816, when the act 56th George III. cap. 68, imposing a seignorage of about six per cent. on the silver coin, was passed, the pound weight of standard silver bullion was coined into 62 shillings. All the English silver coins have been coined out of silver of 11oz. 2dwts. fine, from the Conquest to this moment, excepting for a period of sixteen years, from 34th Henry VIII. to the 2d Elizabeth.

The purity of gold is not estimated either in Great Britain, or in most other European countries, by the weights commonly in use, but by the Abyssinian weight, called a *carat*. The carats are subdivided into four parts, called grains, and these again into quarters; so that a *carat grain*, with respect to the common divisions of a pound troy, is equivalent to $2\frac{1}{2}$ pennyweights. Gold of the highest degree of fineness, or pure, is said to be 24 carats fine. When gold coins were first made at the English mint, the standard of the gold put in them was of 23 carats $3\frac{1}{2}$ grains fine, and $\frac{1}{2}$ grain of alloy; and so it continued without any variation to the 18th Henry VIII., when a new standard of gold of 22 carats fine, and 2 carats alloy was introduced. The first of these was called the old standard; the second the new standard, or crown gold, because crowns, or pieces of the value of five shillings, were first coined of this new standard. Henry VIII. made his gold coins of both these standards under different denominations; and this practice was continued by his successors until the year 1633. From that period to the present, gold coins have been invariably made of the new standard, or crown gold; although some of the coins made of the old standard previously to 1633 continued to circulate till 1732, when they were forbidden to be any longer current. (Liverpool, *On Coins*, p. 27.)

Weight of English Coins.

The standard of our present gold coins is, therefore, eleven parts of fine gold, and one part of alloy. The pound Troy of such gold is divided into $46\frac{89}{129}$ sovereigns, each of which ought, consequently, when fresh from the mint, to weigh $\frac{1}{46\frac{89}{129}}$ of twelve ounces, or five dwts. $3\frac{171}{623}$ grains of standard gold, or four dwts. $17\frac{18}{11214}$ grains of pure gold.

The alloy in coins is reckoned of no value. It is allowed, in order to save the trouble and expense that would be incurred in refining the metals, so as to bring them to the highest degree of purity; and because, when its quantity is small, it has a tendency to render the coins harder, and less liable to be worn or rubbed. If the quantity of alloy were considerable, it would lessen the splendor and the ductility of the metals, and would add too much to the weight of the coins.

Having thus ascertained what the standard of money really is, we shall now proceed to examine the effects produced by variations in the standard. This is, both in a practical and historical point of view, a very important inquiry.

Variations of the Standard.—General Remarks.

To make any direct alteration in the terms of the contracts entered into between individuals, would be too barefaced and tyranical an interference with the rights of property to be tolerated. Those, therefore, who endeavour to enrich one part of society, at the expense of another, find it necessary to act with great caution and reserve, and to substitute artifice for open and avowed injustice. Instead of directly altering the stipulations in contracts, they have ingeniously bethought themselves of altering the standard by which these stipulations were adjusted. They have not said, in so many words, that ten or twenty per cent. should be added to or deducted from the mutual debts and obligations of society, but they have, nevertheless, effected this by making a proportional change in the value of the currency. Men, in their bargains do not, as has been already seen, stipulate for signs or measures of value, but for real equivalents. Money is not merely the standard by a comparison with which the value of commodities is ascertained; but it is also the equivalent, by the delivery of a fixed amount of which the stipulations in most contracts and engagements may be discharged. It is plain, therefore, that no variation can take place in its value, without affecting all these stipulations. Every addition to the value of money makes a corresponding addition to the debts of the state, and of every individual; and every diminution of its value makes a corresponding diminution of those debts. Suppose that, owing to an increase in the difficulty of producing gold and silver, or in the quantity of bullion contained in coins of the same denomination, the value of money is raised twenty per cent., it is plain that this will add twenty per cent. to the various sums which one part of society owes to another. Though the nominal rent of the farmer, for example, continue stationary, his real rent is increased. He continues to pay the same number of pounds or livres as formerly; but these have become more valuable, and require to obtain them the sacrifice of a fifth part more corn, labor, or other things, the value of which has remained stationary. On the other hand, had the value of money fallen twenty per cent., the advantage, it is plain, would have been all on the side of the farmer, who would have been entitled to a discharge from his landlord, when he had paid him only four-fifths of the rent really bargained for.

But, notwithstanding it is thus obviously necessary, in order to prevent a pernicious subversion of private fortunes, and the falsifying of all precedent contracts, that the standard of money, when once fixed, should be maintained inviolate, there is nothing that has been so frequently changed. We do not here allude to variations affecting the value of the bullion of which the standard is composed, and against which it is impossible to guard, but to variations in the quantity of bullion contained in the same nominal sum of money. In almost every country, debtors have been enriched at the expense of their creditors. The necessity, or the extravagance of governments, have forced them to borrow; and to relieve themselves of their incumbrances, they have almost universally had recourse to the disgraceful expedient of degrading the coin; that is, of *cheating* those who had lent them money, and of enabling every other debtor in their dominions to do the same.

The ignorance of the public in remote ages greatly facilitated this species of fraud. Had the names of the coins been changed when the quantity of metal contained in them was diminished, there would have been no room for misapprehension. But, though the weight of the coins was undergoing perpetual, and their purity occasional reductions, their ancient denominations were almost uniformly preserved: and those people who saw the same names still remaining after the substance was diminished; who saw coins of a certain weight and finenes circulate under the names of florins, livres, and pounds, and who saw them continue to circulate as such, after both their weight and the degree of their fineness had been lessened, began to think that they derived their value more from the stamp affixed to them, by authority of government, than from the quantity of the precious metals they contained. This was long a very prevalent opinion. But the rise of prices which invariably followed every reduction of the standard, and the derangement which was thereby occasioned in every pecuniary transaction, undeceived the public, and taught them, though it may not yet have taught their rulers, the expediency of preserving the standard of money inviolate.

Manner of changing the Standard.

Before proceeding to notice the changes made in the currency of this and other countries, it may be proper to observe, that the standard is generally debased in one or other of the undermentioned ways.

First, by simply altering the denominations of the coins, without making any alteration in their weight or purity. Thus, suppose sixpence, or as much silver as there is in a sixpence, were called a shilling, then a shilling would be two shillings, and twenty of these shillings, or ten of our present shillings, would constitute a pound sterling. This would be a reduction of fifty per cent in the standard.

Secondly, the standard may be reduced, by continuing to issue coins of the same weight, but making them baser, or with less pure metal and more alloy.

Thirdly, it may be reduced, by making the coins of the same degree of purity, but of diminished weight, or with less pure metal; or it may be reduced partly by one of these methods, and partly by another.

The first of these methods of degrading the standard was recommended by Mr. Lowndes in 1695, and if injustice is to be done, it is certainly, on the whole, the least mischievous mode by which it can be perpetrated. It saves all the trouble and expense of a recoinage; but as it renders the fraud too obvious, it has been but seldom resorted to. In inquiries of this kind, however, it is rarely necessary to investigate the manner in which the standard has been degraded. And by its reduction or degradation, we uniformly mean, unless when the contrary is distinctly expressed, a diminution of the quantity of pure metal contained in coins of the same denomination without regard to the particular mode in which such diminution may have been effected.

In conformity with what has been observed in the first section of this article, relative to the universality of the ancient practice of weighing the precious metals in every exchange, it is found that the coins of most countries have the same names as the weights commonly used in them. To these weights the coins at first exactly correspond. Thus the *talent* was a weight used in the earliest periods by the Greeks, the *as* or *pondo* by the Romans, the *livre* by the French, and the *pound* by the English, Scotch, &c.; and the coins originally in use in Greece, in Italy, in France, and in England, received the same denominations, and weighed precisely a talent, a pondo, a livre, and a pound. The standard has not, however, been preserved inviolate, either in ancient or in modern times. But the limits within which an article of this kind must be confined, prevents us from tracing the various changes in the money of this and other countries, with the minuteness which the importance of the subject deserves, and obliges us to notice only those which were most prominent.

It is impossible in this place to enter into any discussion relative to the value of Grecian money. It is, however, a subject of no little interest and curiosity. M. Romé de l'Isle, in his *Traité de Métrologie*, published in 1789, has given an account of the weight and fineness of an immense number of Attic *drachmas* and *tetradrachmas*. But he does not seem to have been more fortunate than his predecessors in deducing the value of the *talent* from the weight of the *drachmas.* The errors and absurdities into which modern critics and commentators have fallen in estimating the value of the sums mentioned in ancient authors, is indeed astonishing. They are ably pointed out in a short essay, *De la Monnoie des Peuples Anciens*, in one of the supplemental volumes added by Garnier to his translation of the *Wealth of Nations.*

History of the Money of Rome — Weight of the As.

Roman Money. — We learn from Pliny, that the first Roman coinage took place in the reign of Servius Tullius, that is, according to the common chronology, about 550 years before Christ. The *as*, or *pondo*, of this early period, contained a Roman pound of copper, the metal then exclusively used in the Roman coinage, and was divided into twelve parts or *unciæ.* If we may rely on Pliny, this simple and natural system was maintained until 250 years before our era, or until the first Punic war, when the revenues of the state being insufficient, government attempted to supply the deficiency by reducing the weight of the as from twelve to two ounces. But it is extremely improbable that a government, which had maintained its standard inviolate for 300 years, should have commenced the work of degradation, by at once reducing it to *a sixth part* of its former amount; and it is equally improbable that so sudden and excessive a reduction should have been made in the value of the current money of the state, and consequently, in the debts due by individuals to each other, without occasioning the most violent commotions. Nothing, however, is said in any ancient writer, to entitle us to infer that such commotions actually took place; and we, therefore, concur with those who think that the weight of the as had been previously reduced, and that its diminution, which, it is most probable, would be gradual and progressive, had merely been carried to the extent mentioned by Pliny during the first Punic war. In the second Punic war, or 215 years before Christ, a further degradation took place, and the weight of the as was reduced from two ounces to one ounce. And by the Papyrian law, supposed to have passed when Papyrius Turdus was tribune of the people, or 175 years before Christ, the weight of the as was reduced to half an ounce, or to $\frac{1}{24}$th of its ancient weight, at which it continued till Pliny's time and long afterwards.

"Servius rex primus signavit æs. Antea rudi usos Romæ Remeus tradit. Signatum est nota pecudum unde et pecunia appellata. . . . . Argentum signatum est anno urbis DLXXXV. Q. Fabio Cos. quinque annos ante primum bellum Punicum. Et placuit denarius pro x. libris æris, quinarius pro quinque, sestertium pro dipondio ac semisse. Libræ autem pondus æris imminutum bello Punico primo cum impensis resp. non sufficeret, constitutumque ut asses sextentario pondere ferirentur. Ita quinque partes factæ lucri, dissolutumque æs alienum. . . . . Postea, Annibale urgente, Q. Fabio Maximo Dictatore, asses unciales facti: placuitque denarium xvi. assibus permutari, quinarium octonis, sestertium quaternis. Ita resp. dimidium lucrata est. Mox lege Papyria semunciales asses facti." (Plinii, *Hist. Nat.*, lib. xxxiij. cap. 3. Lugd. Bat. 1669.)

Proportion of Silver to Copper.

The denarius, the principal silver coin in use amongst the Romans, for a period of 600 years, was coined five years before the first Punic war, and was, as its name imports, rated in the mint valuation at ten asses. Mr. Greaves, whose dissertation on the denarius has been deservedly eulogized by Gibbon (*Decline and Fall*, vol. iii. p. 89), shows that the denarius weighed at first only *one-seventh* part of the Roman ounce (this is, indeed, decisively proved by a passage in Celsus: "Sed et antea sciri volo in uncia pondus denariorum esse septem." Cels. lib. xv. cap. 17), which, if Pliny's account of the period when the weight of the as was first reduced be correct, would give the value of silver to copper in the Roman mint as 840 to 1, which Mr. Greaves very truly calls a "most unadvised proportion." But if we suppose, with Mr. Pinkerton (*Essay on Medals*, vol. i. p. 132, edit. 1789), that when the denarius was first issued, the as only weighed three ounces, the proportion of silver to copper would be as 252 to 1, a proportion which, when the as was soon afterwards reduced to two ounces, would be as 168 to 1, or about a third more than in the British mint. When, in the second Punic war, the as was reduced from two ounces to one, the denarius was rated at sixteen asses.

Value of the Denarius.

During his stay in Italy, Mr. Greaves weighed many of the consular denarii, that is, as he explains himself, of the denarii that were struck after the second Punic war, and previously to the government of the Cæsars; and he found, by frequent and exact trials, that the best and most perfect of them weighed 62 grains English troy weight. (Greaves's *Works*, vol. i. p. 262.) Now, as the English shilling (new coinage) contains very nearly 87¼ grains standard silver, this would give 8½*d.* for the value of the consular denarius. We should, however, fall into the grossest mistakes, if we indiscriminately converted the sums mentioned in the Latin authors by this or any other fixed proportion. It is not enough to determine the real value of a coin, to know its weight; the degree of its purity or the fineness of the metal of which it is made, must also be known. But Mr. Greaves did not assay any of the denarii weighed by him. And though it were true, as most probably it is, that, from the first coinage of silver in the 485th year of the city to the reign of Augustus, the weight of the denarius remained constant at $\frac{1}{7}$th part of a Roman ounce, or about 62 grains; and that, from the reign of Augustus to that of Vespasian, it only declined in weight from $\frac{1}{7}$th to $\frac{1}{8}$th of an ounce (Greaves, vol. i. p. 331. Gibbon's *Miscellaneous Works*, vol. v. p. 71); still it is abundantly certain that its real value had been reduced to a much greater extent. As to this fact the authority of Pliny is decisive; for he expressly states, that Livius Drusus, who was tribune of the people in the 662d year of the city, or 177 years after the first coinage of silver, debased its purity, by alloying it with $\frac{1}{8}$th part of copper. (Lib. xxxiij. cap. 3, previously quoted.) And in a subsequent chapter (the ninth) of the same book, he informs us that

Antony the triumvir mixed iron with the silver of the denarius; and that, to counteract these abuses, a law was afterwards made providing for the assay of the denarii. Some idea of the extent to which the purity of the coins had been debased, and of the disorder which had in consequence been occasioned, may be formed from the circumstance, also mentioned by Pliny, of statues being everywhere erected in honor of Marius Gratidianus, by whom the law for the assay had been proposed. But this law was not long respected; and many imperial denarii are now in existence, consisting of mere plated copper. (Bazinghen, *Dictionnaire des Monnoies*, tom. ii. p. 64.)

Value of the Aureus. — *Value of the Sestertius.*

Gold was first coined at Rome sixty-two years after silver, in the 547th year of the city, and 204 years before Christ. The aureus originally weighed $\frac{1}{40}$th part of the *pondo* or Roman pound; but by successive reductions its weight was reduced, in the reign of Constantine, to only $\frac{1}{72}$d part of a pound. The purity, however, as well as the weight of the aureus was diminished. Under Alexander Severus it was alloyed with $\frac{1}{5}$th part of silver. We learn from Dion Cassius, contemporary with Severus, that the aureus was rated at twenty-five denarii, a proportion which Mr. Pinkerton thinks was always maintained under the emperors. (*Essay on Medals*, vol. i. p. 148.)

The want of attention to this progressive degradation has led the translaters of, and commentators on, ancient writers, to the most extraordinary conclusions. The sestertius, or money *unit* of the Romans, was precisely the *fourth* part of a denarius. "Nostri autem," says Vitruvius (lib iii. cap. 1), "primo decem fecerunt antiquum numerum, et in denario denos æreos asses constituerunt, et ea re compositio nummi ad hodiernum diem denarii nomen retinet; etiamque quartam ejus partem, quod efficiebatur ex duobus assibus et tertio semisse *sestertium* nominaverunt." When, therefore, the denarius was worth 8½d. the sestertius must have been worth 2⅛d. But the sestertius being thus plainly a multiple of, and bearing a fixed and determined proportion to, the denarius, and consequently to the as, the aureus, and the other coins generally in use, it must have partaken of all their fluctuations. When they were reduced, the sestertius must have been likewise reduced; for if it had not been so reduced, or, if the quantity of degraded denarii and aurei contained in a given sum of sestertii had been increased in proportion to their degradation, nothing, it is obvious, would have been gained by falsifying the standard. But as we know that on one occasion the republic got rid of half of its debts, *respublica dimidium lucrata est*, by simply reducing the standard of the as, it is certain that the value of the sestertius must have fallen in the same proportion, just as in England we should reduce the pound sterling, our money *unit*, by reducing the shillings of which it is made up.

Writers on ancient coins, with the exception of Mr. Pinkerton, agree in supposing the sestertius to have been originally, and to have always continued to be, a *silver* coin. Mr. Pinkerton has, however, denied this opinion, and, on the authority of the following passage of Pliny, contends that the sestertius was at the time when Pliny wrote, whatever it might have been before, a *brass* coin. "Summa gloria æris nunc in Marianum conversa, quod et Cordubense dicitur. Hoc a Liviano cadmiam maxime sorbet, et orichalci bonitatem imitatur in SESTERTIIS, DUPONDIARIISQUE, Cyprio suo ASSIBUS contentis." (Lib. xxxxiv. cap. 2.) That is, literally, "The greatest glory of brass is now due to the Marian, also called that of Cordova. This, after the Livian, absorbs the greatest quantity of *lapis calaminaris*, and imitates the goodness of orichalcum (*yellow brass*) in our SESTERTII and DUPONDIARII, the ASSES being contented with the Cyprian (brass)." Pliny had previously observed, that the Cyprian was the least valuable brass. This passage is, we think, decisive in favor of Mr. Pinkerton's hypothesis. But, in the absence of positive testimony, the *small value* of the sestertius might be relied on as a sufficient proof that it could not be silver. When the denarius weighed 62 grains, the sestertius must have weighed 15½, and been worth 2⅛d.; but a coin of so small a size as to be scarcely equal to *one third* part of one of our sixpences, would have been extremely apt to be lost; and could not have been struck by the rude methods used in the Roman mint with any thing approaching to even tolerable precision. It is, therefore, much more reasonable to suppose that it was of brass.

Errors of Dr. Arbuthnot and others.

But though it had not been possible to produce such clear and explicit evidence of the continued degradation of the Roman money, the obvious absurdity of many of the calculations which have been framed, on the supposition of its remaining stationary at the rates fixed in the earlier ages of the commonwealth, would have sufficiently established the fact of its degradation. Dr. Arbuthnot's *Tables of Ancient Coins*, which, for nearly a century, have been considered in England, and in the greater part of the Continent, as of the highest authority, are constructed on the hypothesis that the denarii weighed by Mr. Greaves were of equal purity with English standard silver, and that no subsequent diminution had been made either in their weight or fineness. The conclusions derived from such data are precisely such as we should arrive at, if, in estimating the value of a French livre previously to the Revolution, we took for granted that it weighed a pound of pure silver, as in the reign of Charlemagne. Amongst many other things quite as extraordinary, we learn from Arbuthnot, that Julius Cæsar, when he set out for Spain, after his prætorship, was £2,018,229 sterling worse than nothing; that Augustus received, in legacies from his friends, £32,291,666; that the estate of Pallus, a freedman of Crassus, was worth £2,421,875, and, which is still better, that he received £121,093 as a reward for his virtues and frugality; that Æsop, the tragedian, had a dish served up at his table which cost £4,843; that Vitellius spent £7,265,612 in twelve months, in eating and drinking; and that Vespasian, at his accession to the empire, declared that an annual revenue of £322,916,666 would be necessary to keep the state machine in motion. It is astonishing that none of our scholars or commentators seem ever to have been struck with the palpable extravagance of such conclusions, which, to use the words of Garnier, "ont mis l'Histoire Ancienne, sous le rapport des valeurs, au même degré de vraisemblance que les contes de *Mille et un Nuits.*" They have, we believe, without any exception, slavishly copied the errors of Arbuthnot; and to this hour the computations in the books on Roman antiquities used in our schools and universities are all borrowed from his work. It should be remembered that, from the greater poverty of the mines of the Old World, and the comparatively small progress made by the ancients in the art of mining, the value of gold and silver was much greater in ancient times than at present. But, without taking this circumstance into account, the computations referred to are too obviously erroneous to deserve the smallest attention. Vespasian, we believe, would have been very well satisfied with a revenue of twenty millions; and there are good grounds for supposing that the Roman revenue, when at the highest never amounted to so large a sum. (Gibbon, vol. i. p. 260.)

History of the Money of France. — Degradation of the Livre.

We subjoin an abridged table, calculated by M. Denis, exhibiting the average value of the French Livre in different periods, from the year 800 to the Revolution: —

Reigns.	*Years.*	*Value of the Livre in the Current Money of* 1789.		
		Liv.	Sols.	Den.
From the 32d year of Charlemagne to the 43d year of Philip I.	or from 800 to 1103	78	17	0
Part of the reign of Philip I., Louis VI., and VII.	" 1103 " 1180	18	13	8
Philip II. and Louis VIII.	" 1180 " 1226	19	18	$4\frac{4}{5}$
Louis IX. and Philip IV.	" 1226 " 1314	18	3	5
Louis X. and Philip V.	" 1314 " 1322	17	3	5
Charles IV. and Philip VI.	" 1322 " 1350	14	11	10
John	" 1350 " 1364	9	19	$2\frac{2}{5}$
Charles V.	" 1364 " 1380	9	9	8
Charles VI.	" 1380 " 1422	7	2	3
Charles VII.	" 1422 " 1461	5	13	9
Louis XI.	" 1461 " 1483	4	19	7
Charles VIII.	" 1483 " 1498	4	10	7
Louis XII.	" 1498 " 1515	3	19	8
Francis I.	" 1515 " 1547	3	11	2
Henry II. and Francis II.	" 1547 " 1560	3	6	$4\frac{4}{5}$
Charles IX.	" 1560 " 1574	2	18	7
Henry III.	" 1574 " 1589	2	12	11
Henry IV.	" 1589 " 1610	2	8	0
Louis XIII.	" 1610 " 1643	1	15	3
Louis XIV.	" 1643 " 1715	1	4	11
Louis XV.	" 1715 " 1720	0	8	0
Louis XV. and XVI.	" 1720 " 1789	1	0	0

Those who wish for a detailed account of the various changes in the weight and purity of the French coins, may, besides the excellent work of Le Blanc, consult the elaborate and very complete tables at page 905 of the *Traité des Mésures* of Paucton, and at page 197 of the *Essai sur les Monnoies* of Dupré de St. Maur.

FRENCH MONEY. — From about the year 800, in the reign of Charlemagne, to the year 1103, in tnat of Philip I., the French *livre*, or money unit, contained exactly a pound weight or twelve ounces (poids de marc) of pure silver. It was divided into twenty sols, each of which, of course, weighed $\frac{1}{20}$th part of a pound. This ancient standard was first violated by Philip I., who diminished considerably the quantity of pure silver contained in the sols. The example once set, was so well followed up, that in 1180 the livre was reduced to less than a *fourth* part of its original weight of pure silver. In almost every succeeding reign there was a fresh diminution. "La Monnoye," says Le Blanc, "qui est la plus précieuse et la plus importante des mésures, a changé en France presque aussi souvent que nos habits ont changé de mode." And to such an extent had the process of degradation been carried, that, at the epoch of the Revolution, the livre did not contain a *seventy-eighth* part of the silver contained in the livre of Charlemagne. It would then have required 7,885 livres really to extinguish a debt of 100 livres contracted in the ninth or tenth centuries; and an individual who, in that remote period, had an annual income of 1,000 livres, was as rich, in respect to money, as those who, at the Revolution, enjoyed a revenue of 78,850 livres. (Paucton, *Traité des Mésures, Poids*, &c., p. 693.)

It was not to be expected, that degradations originating in the necessities, the ignorance, and the rapacity of a long series of arbitrary princes, should be made according to any fixed principle. They were sometimes the result of an increase in the denomination of the coins, but more frequently of a diminution of the purity of the metal of which they were struck. A degradation of this kind was not so easily detected; and, in order to render its discovery still more difficult, Philip of Valois, John, and some other kings, obliged the officers of the mint to swear to conceal the fraud, and to endeavour to make the merchants believe that the coins were of full value. (Le Blanc, p. 212.) Sometimes one species of money was reduced, without any alteration being made in the others. No sooner, however, had the people in their dealings manifested a preference, as they uniformly did, for the money which had not been reduced, than its circulation was forbidden, or its value brought down to the same level with the rest. (Id., *Introduction*, p. 20.) In order to render the subject more obscure, and the better to conceal their incessant frauds, individuals were at one time compelled to reckon exclusively by livres and sols, at other times by crowns or ecus; and not unfrequently they were obliged to refer, in computing, to coins which were neither livres, sols, nor crowns, but some multiple or fractional part thereof. The injurious effects of these constant fluctuations in the value of money are forcibly depicted by the French historians; and so insupportable did they become, that in the fourteenth and fifteenth centuries several cities and provinces were glad to purchase the precarious and little respected privilege of having coins of a fixed standard, by submitting to the imposition of heavy taxes. (Le Blanc, p. 93.)

In the Dutchy of Normandy, when it was governed by the English monarchs, there was a tax upon hearths paid every three years, called *monetagium*, in return for which the sovereign engaged *not to debase his coins*. This tax was introduced into England by our early kings of the

Norman race; but Henry I., in the first year of his reign, was induced to abandon it, and it has not since been revived. (Liverpool, *On Coins*, p. 107.)

According to the present regulations of the French mint, the coins contain $\frac{9}{10}$ths of pure metal, and $\frac{1}{10}$th of alloy. The *franc*, which is equal to 1 livre, 0 sols, 3 deniers, weighs exactly 5 grammes, or 77.2205 English Troy grains. The gold piece of 20 francs weighs 102.96 English grains. (Peuchet, *Statistique Elémentaire de la France*, p. 538.)

Of England.—Degradation of the Pound Sterling.

English Money. — In England, at the epoch of the Norman conquest, the silver, or money pound, weighed exactly twelve ounces Tower weight. It was divided into twenty shillings, and each shilling into twelve pence, or sterlings. This system of coinage, which is in every respect the same with that established in France by Charlemagne, had been introduced into England previously to the invasion of William the Conqueror, and was continued, without any alteration, till the year 1300, in the 28th Edward I., when it was for the first time violated, and the value of the pound sterling degraded to the extent of $\frac{19}{81}$ per cent. But the really pernicious effect of this degradation did not consist so much in the trifling extent to which it was carried by Edward, as in the example which it afforded to his less scrupulous successors, by whom the standard was gradually debased, until, in 1601, in the reign of Queen Elizabeth, 62*s.* were coined out of a *pound* weight of silver. This was a reduction of above *two-thirds* in the standard; so that all the stipulations in contracts, entered into in the reigns immediately subsequent to the Conquest, might, in 1601, and since, be legally discharged by the payment of less than a *third part* of the sums really bargained for. And yet the standard has been less degraded in England than in any other country.

The tables annexed to this article give an ample account of these degradations, and also give the weight of the gold coins, and the proportional value of gold to silver, estimated both by the mint regulations and by the quantity of fine gold and fine silver contained in the different coins.

Of Scotland.

Scotch Money. — In the same manner as the English had derived their system of coinage from the French, the Scotch derived theirs of coinage from the English. From 1296 to 1355, the coins of both divisions of the island were of the same size and purity. But at the last-mentioned period it was attempted to fill up the void occasioned by the remittance of the ransom of David II. to England, by degrading the coins. Till then the money of Scotland had been current in England, upon the same footing as the money of that country; and the preservation of this equality is assigned by Edward III. as a reason for his degrading the English coins. But this equilibrium was soon afterwards destroyed. In the first year of Robert III. (1390) Scotch coin only passed for half its nominal value in England; and, in 1393, Richard II. ordered that its currency, as money, should entirely cease, and that its value should be made to depend on the weight of the genuine metal contained in it. "To close this point at once," says Mr. Pinkerton, "the Scottish money equal in value to the English till 1355, sunk by degrees, reign after reign, owing to succeeding public calamities, and the consequent impoverishment of the kingdom, till, in 1600, it was only a *twelfth* part of the value of English money of the same denomination, and remained at that point till the union of the kingdoms cancelled the Scottish coinage." (*Essay on Medals*, vol. ii. p. 99).

The tables at the end of this article exhibit the successive degradations both of the Scotch silver and gold coins.

At the Union, in 1707, it was ordered that all the silver coins current in Scotland, foreign as well as domestic, except English coins of full weight, should be brought to the Bank of Scotland, to be taken to the mint to be recoined. In compliance with this order, there were brought in,

Of foreign silver money, (Sterling),	£ 132,080	17	9
Milled Scottish coins,	96,856	13	0
Coins struck by hammer,	142,180	0	0
English milled coin,	40,000	0	0
Total,	£411,117	10	9

Mr. Ruddiman conjectures, apparently with considerable probability, that the value of the Scotch gold coins, and of the silver coins not brought in, amounted to about as much more. Much suspicion was entertained of the measure of a recoinage; and that large proportion of the people who were hostile to the Union, and did not believe that it would be permanent, brought very little money to the bank. A few only of the hoarded coins have been preserved, the far greater part having either been melted by the goldsmiths, or exported to other countries. (Preface to Anderson's *Diplomata*, p. 176.)

Of Ireland.

Irish Money. — The gold and silver coins of Great Britain and Ireland are now the same, and have been so for a considerable period. The rate, however, at which these coins used to circulate in Ireland, or their nominal value as money of account, was 8⅓ per cent. higher than in Great Britain. This difference of valuation, though attended with considerable inconvenience in adjusting the money transactions between the two countries, subsisted from 1689 till 1825, when it was put an end to. For an account of the various species of metallic money which have at different times been current in Ireland, we must refer our readers to Mr. Simons's *Essay on Irish Coins* (originally printed at Dublin, in 1749, in 4to., and reprinted with some additions in 1810); a work pronounced by Mr. Ruding to be "the most valuable of all the publications on the coinage of any part of the United empire." (*Annals of the Coinage*, Preface, vol. i. p. 11.)

Of Germany, &c.

Money of Germany, Spain, &c. — A similar process of degradation had been universally carried on. " In many parts of Germany, the florin, which is still the integer, or money of account of those countries, was originally a *gold* coin, of the value of about 10*s.* of our present money (old coinage). It is now become a silver coin of the value of only 20*d.* ; and its present value, therefore, is only equal to a sixth part of what it was formerly. In Spain, the maravedi, which was in its origin a Moorish coin, and is still the money of account of that kingdom, was in ancient times most frequently made of gold. Le Blanc observed that, in 1220, the maravedi weighed 84 grains of gold, equal in value to about 14*s.* (old coinage) of our present money. But this maravedi, though its value is not quite the same in all the provinces of Spain, is now become a small copper coin, equal in general to only $\frac{43}{272}$ of an English penny ! In Portugal, the re, or reis, is become of no greater value than $\frac{27}{401}$ of an English penny ; it is so small that, in estimating its value in other coins, it is reckoned by hundreds and thousands. The moeda, or moidore, is equal to 4,800 reis ; and this little coin has now, in fact, no existence but in name. Such has been the fate of all these coins, and such is the present state of their depreciation." (Liverpool, *On Coins*, p. 111.)

Of Russia. — Raising of the Value of the Coin.

Russian Money. — The following, according to M. Storch, are the fluctuations in the weight and value of the rouble, or *money unit* of Russia, since 1700.

Years.	*Weight of the Rouble.*		*Value in Current Roubles of* 1821.	
	Zolot.	Dolis.	Rou.	Cop.
Year 1700, ...	11	40	2	70½
From 1700 to 1718, ...	5	67	1	35
" 1718 " 1731, ...	4	83	1	15⅓
" 1731 " 1762, ...	5	16	1	22½
" 1762 " 1821, ...	4	21	1	0

The principle of degradation has not, however, been uniformly acted upon. The quantity of bullion contained in coins of the same denomination has sometimes, though rarely, been increased, and creditors enriched at the expense of their debtors. This method of swindling his subjects is said to have been first practised by Heliogabalus. The Roman citizens being bound to pay into the imperial treasury a certain number of pieces of gold, or *aurei*, the emperor, whose vices have become proverbial, to increase his means of dissipation, without appearing to add to the weight of the taxes, increased the quantity of metal contained in the *aureus ;* and thus obtained, by a fraudulent trick, what he might not have obtained by a fair and open proceeding. (Lamp. *Vita. Alex. Severi*, cap. 39. — Perhaps Heliogabalus took the hint from Licinius, a freedman of Julius Cæsar, who, in his government of the Gauls under Augustus, divided the year into fourteen months instead of twelve, because the Gauls paid a certain *monthly* tribute. Dion Cassius, lib. 72.) In France, the value of the coins has been frequently raised. During the early part of the reign of Philip le Bel, who ascended the throne in 1285, the value of the coin had been reduced to such an extent as to occasion the most violent complaints on the part of the clergy and landholders, and generally of all that portion of the public whose incomes were not increased proportionably to the reduction in the value of money. To appease this discontent, and in compliance with an injunction of the pope, the king at length consented to issue new coins, of the same denomination with those previously current, but which contained about *three* times the quantity of silver. This, however, was merely shifting an oppressive burden from the shoulders of one class to those of another, less able to bear it. The degraded money having been in circulation for about sixteen years, by far the largest proportion of the existing contracts must have been adjusted with reference to it. No wonder, therefore, that debtors should have felt indignant at the shameful act of injustice done them by this enhancement of the value of money, and have refused to make good their engagements, otherwise than in money of the value of that which had been current when they were entered into. The laboring class, to whom every sudden change in the value of money is injurious, having joined the debtors in their opposition, they broke out into open rebellion. "The people," says Le Blanc, "being reduced to despair, and having no longer any thing to care for, lost the respect due to the edict of his Majesty; — they pillaged the house of the master of the mint, who was believed to have been the chief adviser of the measure, besieged the temple, in which the king lodged, and did all that an infuriated populace is capable of doing." (*Traité Historique des Monnoyes de France*, p. 190.) The sedition was ultimately suppressed; but it is not mentioned whether any abatement was made, by authority, from the claims of the creditors in the contracts entered into when the light money was in circulation. It seems probable, however, from what is elsewhere mentioned by Le Blanc (Introduction, p. 30), that such was really the case.

Increase of the Value of the English Coins in the Reign of Edward VI.

The history of the French coinage affords several instances similar to the very remarkable one we have now brought under the notice of our readers; but, in England, the new coinage in the last year of the reign of Edward VI. is the only instance in which the value of money has been augmented by the direct interference of government. Previously to the accession of Henry VIII., the pound of standard silver bullion, containing 11oz. 2dwts. of pure silver, and 13dwts. of alloy, was coined into thirty-seven shillings and sixpence. But Henry not only increased the number of shillings coined out of a pound weight of silver, but also debased its purity. The degradation was increased under his son and successor, Edward VI., in the fifth year of whose reign, seventy-two shillings were coined out of a pound weight of bullion; but as this bullion contained only *three* ounces of pure silver to *nine* ounces alloy, twenty of these shillings were only equal to 4*s.* 7¾*d.* of our present money, including the seignorage. (Folkes's *Table of English Coins*, p. 34.) It appears, from the proclamations issued at the time, and from other authentic documents, that this excessive reduction of the value of silver money had been productive of the greatest confusion. A *maximum* was set on the price of corn and other necessaries; and letters were sent to the gentlemen of the different counties desiring them to punish those who refused to carry their grain to market. But it was soon found to be quite impossible to remedy these disorders otherwise than by withdrawing the base money from circulation. This was accordingly resolved upon; and, in 1552, new coins were issued, the silver of which was of the old standard of purity, and which, though less valuable than those in circulation, during the early part of the reign of Henry VIII., were above *four* times the value of a large proportion of the coins of the same denomination that had been in circulation for some years before.

It is certain, however, that such a rise in the value of money could not have taken place without occasioning the most violent commotions, had *all* the coins previously in circulation been debased. Equal injustice, it must be remembered, is always done to the poorest, and not least numerous class of society, by increasing the value of money, that is done to the wealthier classes by depressing it. But, though government had been disposed to sanction so enormous an invasion of the right of property, it is altogether impossible that the country could have submitted to have had 400 or 450 per cent. added to its taxes and other public burdens, by a legerdemain trick of this kind, or that individuals would have consented to pay so much more than they had originally bargained for. Instead of deserving praise for accomplishing such a measure, Edward VI., who began the reformation of the coins, and Elizabeth, by whom it was completed, would have justly forfeited the esteem of their subjects, and lost all their popularity. The truth is, however, that little or no change had been made, during all this period, in the value of the *gold* coins; and there is, besides, abundance of evidence to show, that many of the old silver coins had remained in circulation. Now, as there is no mention made of the issue of the new coins having been attended with any inconvenience, it is nearly certain, as Mr. Harris has remarked, that, during the period of the debasement of the standard, individuals had regulated their contracts chiefly with reference to the gold or old silver coins; or, which is the same thing, that "they had endeavoured, as well as they could, *to keep by the standard, as it had been fixed in the preceding times.*" (Harris, *On Coins*, part ii. p. 3.)

We have been thus particular in examining this measure, because it has been much referred to. It is plain, however, that it can give no support to the arguments of those who appeal to it as affording a striking proof of the benefits which they affirm must always result from restoring a debased or degraded currency to its original purity or weight. Invariability of value is the great desideratum in a currency. To elevate the standard after it has been for a considerable period depressed, is really not a measure of justice, but the giving *a new direction to injustice.* It vitiates and falsifies the provisions in one set of contracts, in order properly to adjust those in some other set.

This, however, as already remarked, is the only instance in which the government of England has ever interfered directly to enhance the value of money. In every other case, where they have tampered with the standard, it has been to lower its value, or, which comes to the same thing, to reduce their own debts and those of their subjects.

Pernicious Effects of a Reduction of the Standard.

It is unnecessary to enumerate in detail the various bad consequences that must have resulted from these successive changes in the standard of value. But, it deserves to be remarked, that an arbitrary reduction of the standard does not afford any real relief to the governments by whom it is practised. Their *debts* are, it is true, reduced proportionally to the reduction in the value of the currency, but their *revenues* are, at the same time, reduced in the same proportion. A piece of money that has been degraded will not exchange for the same quantity of commodities that it previously did. To whatever extent the standard may be reduced, prices are very soon raised to the same extent. If the degradation be 10 per cent., government, as well as every one else, will, henceforth, be compelled to pay £ 110 for commodities previously obtainable for £ 100. Hence to bring the same real value into the coffers of the treasury, it is necessary that taxation should be increased whenever the standard is diminished ; a measure always odious, and sometimes impracticable.

But a diminution of revenue is not the only bad effect which governments experience from reducing the standard of the currency. A state which has degraded its money, and cheated its creditors, is unable to borrow again on the same favorable terms as if it had acted with good faith. We cannot expect to enjoy the reputation of honesty at the same time that we are openly pocketing the booty earned by duplicity and fraud Those who lend money to knaves always stipulate for a proportionally high rate of interest. They must not only obtain as much as may be obtained from the most secure investments, but they must also obtain an *additional* rate or premium, to cover the risk they run in transacting with those who have given proofs of bad faith, and on whose promises no reliance can be placed. A degradation of the standard of value is, therefore, of all others, the most wretched resource of a bankrupt government. It will never, indeed, be resorted to, except by those who are alike unprincipled and ignorant. " It occasions," says Dr. Smith, " a general and most pernicious subversion of the fortunes of private people ; enriching, in most cases, the idle and profuse debtor at the expense of the frugal and industrious creditor ; and transporting a great part of the national capital from the hands which were likely to increase and improve it, to those which are likely to dissipate and destroy it. When it becomes necessary for a state to declare itself bankrupt, in the same manner as when it becomes necessary for an individual to do so, a fair, open, and avowed bankruptcy, is always the measure which is both least dishonorable to the debtor, and least hurtful to the creditor. The honor of a state is surely very poorly provided for, when, in order to cover the disgrace of a real bankruptcy, it has recourse to a juggling trick of this kind, so easily seen through, and at the same time so utterly pernicious." — (*Wealth of Nations*, vol. iv. p. 42.)

Some of the bad consequences resulting from a change in the value of money might, indeed, be obviated, by enacting, that the stipulations in all preceding contracts should be made good, not according to the present value of money, but to its value at the time when they were entered into. This principle, which is conformable to the just maxim of the civil law (*Valor monetæ considerandus atque inspiciendus est, a tempore contractus, non autem a tempore solutionis*), was acted upon, to a certain extent, at least, by the kings of France, during the Middle Ages. Ordonnances of Philip le Bel, Philip of Valois, and Charles VI., issued subsequently to their having *increased* the value of money, or, as the French historians term it, returned from the *foible* to the *forte* monnoie, are still extant, in which it is ordered, that all previous debts and contracts should be settled by reference to the previous standard. But though the same reason existed, it does not appear that any such ordonnances were ever issued when the value of money was degraded. It is obvious, indeed, that no government could derive any advantage whatever from reducing the value of money, were it to order, as it is in justice bound to do, that all *existing* contracts should be adjusted by the old standard. Such a measure would reduce the revenue without reducing the incumbrances of the state; whilst, by establishing a new standard of value, and unsettling all the notions of the public, it would open a door for the grossest abuses, and be productive of infinite confusion and disorder in the dealings of individuals.

The odium and positive disadvantage attending the degradation of metallic money, appear to have at length induced most governments to abstain from it. But they have only renounced one mode of playing at fast and loose with the property of their subjects, to adopt another and a still more pernicious one. The injustice which was formerly done by diminishing the quantity of bullion contained in the coins of different countries, is now perpetrated with greater ease, and to a still more ruinous extent, by the depreciation of their paper currency. In the last volume of the *Cours d'Economie Politique* of M. Storch, there is a very instructive account of the paper money of the different continental states. We can confidently recommend it as containing much useful information.

From 1601 *to* 1797, *on Changes made in the Standard.*

In the long period from 1601 to 1697, no change was made in the standard of money in this country. A project for enfeebling the standard had indeed been entertained, both in 1626 and 1695; but, in the former instance, it was quashed by the celebrated speech addressed by Sir Robert Cotton to the Lords of the Privy Council, and in the latter by the opposition of Mr. Montague, then Chancellor of the Exchequer, in the House of Commons, and by the impression made by the writings of Mr. Locke, by whom the injustice of the scheme was admirably exposed, out of doors. It was reserved for Mr. Pitt to set aside a standard which had been preserved inviolate for nearly two centuries. The Order in Council of the 25th February, 1797, and the acts of Parliament by which it was followed up, effected a total change in our ancient monetary system; and, instead of the old standard, gave us the *self-interested views and opinions of twenty-four irresponsible individuals.* The circulation of Bank of England paper was secured, by its being exclusively issued in payment of the interest of the public debt, and by its also being received as cash in all payments into the exchequer; but no attempt was made to sustain the value of this paper on a par with the value of gold or silver. Full power was given to the directors of the Bank to raise or depress the value of money, as their interest or caprice might suggest. They were enabled to exchange unlimited quantities of scraps of engraved paper, of the intrinsic worth, perhaps, of 5*s.* a quire, for as many, or the value of as many, hundreds of thousands of pounds. And, in such circumstances, our only wonder is, not that paper money became depreciated, but that its value was not more reduced, and that a still greater quantity of bank-notes were not thrust into circulation.

Effect of the Restriction in 1797 *in degrading the Value of Bank Paper.—Extraordinary Resolution of the House of Commons.*

For the first three or four years after the restriction, the directors, unaware, perhaps, of the nature of the immense power placed in their hands, seem to have regulated their issues nearly on the same principles that had regulated them while they were obliged to pay in coin. It appears from the *Tables of the Price of Bullion*, published by order of the House of Commons, that until 1801 bank-notes were on a par with gold. In 1801 and 1802, however, they were at a discount of from 8⅓ to 7⅓ per cent.; but they again recovered their value; and from 1803 to 1809, both inclusive, they were only at a discount of £2 13*s.* 6*d.* per cent. But in 1809 and 1810, the directors appear to have totally lost sight of every principle by which their issues had previously been governed. The average amount of bank-notes in circulation, which had never exceeded 17½ millions, nor fallen short of 16½ millions, in any one year, from 1802 to 1808, both inclusive, was in 1809 raised to £18,927,833; and, in 1810, to £22,541,523. The issues of country bank paper were increased in a still greater proportion; and, as there was no corresponding increase in the business of the country, the discount on bank-notes rose from £2 13*s.* 6*d.*, in 1809, to £13 9*s.* 6*d.* per cent. in 1810. The recommendation to return to cash payments, contained in the *Report of the Bullion Committee*, presented to the House of Commons in 1810, appears to have given a slight check to the issues of the Bank. All apprehensions from this quarter were, however, speedily dissipated; for in May, 1811, when guineas were notoriously bought at a premium, and bank-notes were at an open discount, as compared with gold bullion, of upwards of ten per cent., the House of Commons not only refused to fix any certain period for reverting to cash payments, but actually voted a resolution, declaring that the promissory notes of the Bank of England had *hitherto been, and were then, held to be, in public estimation, equivalent to the legal coin of the realm.*

This memorable resolution; a resolution which took for granted that a part was equal to a whole; that £90 and £100 were the same thing;

Bankruptcy of the Country Banks in 1814, 1815, and 1816, *Cause of the Rise in the Value of Bank Paper.*

This memorable resolution; a resolution which took for granted that a part was equal to a whole; that £90 and £100 were the same thing; relieved the bank from all uneasiness respecting the interference of Parliament, and tempted the Directors to increase the amount of paper in circulation. The consequence was, that in 1812, it was at an average discount of 20¾; in 1813, of 23; and, in 1814, of 25 per cent. This was the *maximum* of depreciation. The importation of foreign corn, subsequent to the opening of the Dutch ports in 1814, having occasioned a great decline of the price of the principal article of agricultural produce, produced an unprecedented degree of distress, first among the farmers, and latterly among the country bankers. It is estimated that, in 1814, 1815, and 1816, no fewer than 240 private banking companies either became altogether bankrupt, or, at least, stopped payment; and the reduction that was thus occasioned in the quantity of bank notes in circulation, raised their value so rapidly, that, in October, 1816, the discount was reduced to £1 8*s.* 7*d.* per cent. In 1817 and 1818, the average discount on bank paper, as compared with gold, did not exceed £2 13*s.* 2*d.* per cent. In the early part of 1819, it rose to about six per cent., but it very soon declined; and in 1820 and 1821 paper was nearly on a level with gold. (See Table, on English Paper Money, annexed to this article.)

These fluctuations were exceedingly injurious. From 1809 to 1815, the creditors of every antecedent contract, land-holders whose estates had been let on lease, stock-holders, and annuitants of every description, — all, in short, who could not raise the nominal amount of their claims or of their incomes proportionally to the fall in the real value of money, were to this extent losers. The injustice that would have been done to the creditors of the state and of individuals, who had made their loans in gold, or paper equivalent to gold, by raising the denomination of the coin twenty-five per cent., however gross and palpable, would not have been greater than was actually done them in 1814, by compelling them to receive payment of their just debts in paper depreciated to that extent. Circumstances which could neither be controlled by the Bank of England nor the Government, put an end, as has been seen, to this system. But we suffered much, and perhaps are still suffering somewhat from the sacrifices imposed by the rise in the value of money.

Act 59*th of George III. did not raise the Value of the Currency.*

And yet, strange to say, there is a considerable party amongst us who, are even now (1837), at the end of eighteen or twenty years, clamoring for a fresh reduction of the standard. It is no doubt true that after a currency has been for a considerable period depreciated, equal injustice is done by again raising its value, as was done by first depressing it. There is good reason, however, to doubt, whether the depreciation from 1809 to 1815 (for the depreciation of 2½ per cent. during the seven preceding years is too inconsiderable to be taken into account) extended over a sufficiently lengthened period to have warranted the legislature in departing from the old standard. But, without giving any opinion on this point, which is confessedly one of considerable difficulty, it is sufficient to remark, that the value of the currency was raised, *independently altogether of the interference of government.* The destruction of country bank paper, occasioned by the renewed intercourse with the Continent, and the consequent introduction of cheap foreign corn, raised the value of paper, in October, 1816, to within 1½ per cent. of par. Now, as the act 59 Geo. III. was not passed until 1819, and as the currency had not been depreciated in the interim, we confess our inability to discover the grounds on which *it* is affirmed to have been the *cause* of that rise in the value of money which took place *three years before it was in existence.* The proceedings in 1819 did not really add three per cent. to the value of Bank paper, nor were they intended to raise it. (At the period when Sir Robert Peel's bill was passed, bullion was at £4 an ounce; consequently, the depreciation was only £2 13*s.* 2*d.* per cent.) Their great object was to shut the door against a new depreciation, and to prevent paper, which had for three years been nearly on a level with gold, being again degraded. By maintaining the *old* standard, or, which is the same thing, by maintaining the currency at a value nearly corresponding to that to which it had attained in 1816, 1817, and 1818, Parliament certainly gave permanence to the injury which the rise in the value of money had occasioned to the debtors in all the contracts entered into between 1810 and 1815; but if, instead of maintaining this old standard, they had raised the mint price of bullion to its market price in 1814, they would have done an equal injury to the far more numerous body of creditors, in *all the contracts entered into previously to* 1810, *and in the three years subsequent to autumn* 1816.

Standard as now fixed ought be maintained inviolate.

Under these circumstances, it was impossible to adopt any measure capable of giving general satisfaction to those whose interests were so widely different; and against which many plausible, and even forcible objections, might not have been stated. We are firmly persuaded, however, that the legislature followed that course which was, on the whole, the wisest and most advantageous. It must be remembered, that much of that inconvenience and distress, which always result from every sudden rise in the value of money, had been got over in 1817 and 1818. The rents of such farms as had been let during the depreciation had been very generally reduced, a vast number of annuity bonds had been cancelled, and prices and wages had begun to accommodate themselves to the new scale of value. Sir Robert Peel's bill gave stability to arrangements which had been brought about by the natural course of events; and, by fixing the standard at its former limit, secured us, as long at least as we have good sense and honesty to maintain it inviolate, against the risk of future derangement and fluctuation.

But, even if it could be shown that the 59 Geo. III. was inexpedient at the time when it was passed, that would add nothing to the plea of those who are now contending for its repeal. All the objections which it was possible to make to the degradation of the standard in 1819, must apply with a thousand times the force to every scheme for degrading it in 1837; while, on the other hand, all the arguments that could have been urged in favor of the measure at the former period are now quite worthless. The restored standard has been maintained for eighteen years; and ninety-nine out of every hundred of the existing contracts have been entered into with reference to it. To tamper with it now would be the extreme of madness. We should again witness the most pernicious subversion of private fortunes. Debtors would be enriched at the expense of their creditors; the ignorant and unwary would become the prey of the cunning and the crafty; and capitalists would be eager to transfer their stock from a country where it was impossible to lend it, except at the risk of getting it repaid in a depreciated currency. "Whatever, therefore," to avail ourselves of the just and forcible expressions of Mr. Harris, "may be the fate of future times, and whatever the exigency of affairs may require, it is to be hoped that that most awkward, clandestine, and most direful method, of cancelling debts by debasing the standard of money, will be the last that shall be thought of." — (*On Money and Coins*, part ii. p. 108.)

TABLES RELATIVE TO THE MONEY OF GREAT BRITAIN AND OTHER COUNTRIES.

Account of the Relative Value of Gold and Silver in the principal Trading Places of the World, computed from the proportional Quantity of Pure Metal, in their principal Coins, and the Legal or Current Price of those Coins respectively.

	By Mint Regulations.	*By Assays.*	*Names of the Coins from which the Proportions are taken.*
England,		Proved correct by the Trials of the Pix.	Per Guinea and Old Shilling.
By Old Coinage	15.2096 to 1		
By New Coinage	14.2878 to 1		Per Sovereign and New Shilling.
Amsterdam, . .	15.8735 to 1		Per 10 Guilder Piece decreed in 1816, and Silver Florin of the same date.
Hamburgh, . .	15 to 1 nearly	14.83 to 1	Per Ducato reckoned at 6 Marks Banco and Rixdollar.
Paris, ...	15.5 to 1	15·5 to 1	Per 20 Franc Piece, and 5 Franc Piece.
Madrid, . . .	16 to 1	15·85 16·46 to 1	Per Doubloon and Dollar of different Coinages
Lisbon, . . .	13.56 to 1	13 33 to 1	Per Joannese and New Silver Crusado.
Leghorn, . .	14.65 to 1	14·32 to 1	Per Ruspono and Francescone.
Genoa, . . .	15.34 to 1	15·35 to 1	Per Genovina and Scudo.
Naples, . . .	15.21 to 1		Per Oncetto and Ducato. (Coinage of 1818.)
Venice, . . .	15 to 1 nearly	14·35 to 1	Per Sequin and Ducat.
Petersburg, . .	15 to 1 nearly	15·25 to 1	Per Ducat and Ruble.
United States, .	15 to 1	15·94 to 1	Per Eagle and Dollar.
Bengal, . . .	14.857 to 1	14·827 to 1	Per Gold Mohur and Sicca Rupee.
Madras, . . .	13.872 to 1	13,857 to 1	Per Star Pagoda and Current Rupee.
Bombay, . .	15 to 1	15 to 1	Per Gold Rupee and Silver Rupee.
China, . . .	14.25 to 1		Per Tale of Gold, and the Average price of Spanish Dollars.

ENGLISH MONEY. — ACCOUNT OF THE ENGLISH SILVER COINS; SHEWING THEIR VALUE; THE SEIGNORAGE OR PROFIT UPON THE COINAGE, AND THE PRICE PAID TO THE PUBLIC BY THE MINT, FOR THE POUND TROY OF STANDARD GOLD AND SILVER, FROM THE CONQUEST TO THE YEAR 1816. (THIS AND THE NEXT THREE TABLES ARE TAKEN FROM PART II. OF ESSAYS ON MONEY, EXCHANGES, AND POLITICAL ECONOMY, *by Henry James.*)

A. D.	*Anno Regni.*	SILVER.				
		1 *Fineness of the silver in the coins.*	2 *Pound weight of such silver coined into.*	3 *Profit or seignorage on the coinage.*	4 *Prices paid to the public for the pound-wt of silv'r*	5 *Equal to the mint price for standard silver of 11oz 2dts fine troy w't.*
		oz.dts.	*£ s. d.*	*£ s. d.*	*£ s. d.*	*£ s. d.*
1066	Conquest,	11 2	1 0 0	. .	. .	. .
1280	8 Edward I.	“ “	1 0 0	0 1 0	0 19 0	1 0 $3\frac{1}{5}$
1300	28 “ “	“ “	1 0 3	0 1 $2\frac{1}{2}$	0 19 $0\frac{1}{2}$	. .
1344	18 Edward III.	“ “	1 0 3	0 1 3	0 19 0	1 0 $3\frac{1}{5}$
1349	23 “ “	“ “	1 2 6	0 1 3	1 1 3	1 2 8
1356	30 “ “	“ “	1 5 0	0 0 10	1 4 2	1 5 $9\frac{1}{3}$
1394	18 Richard II.	“ “	1 5 0	0 0 10	1 4 2	1 5 $9\frac{1}{3}$
1401	3 Henry IV.	“ “	1 5 0	0 0 10	1 4 2	1 5 $9\frac{1}{3}$
1421	9 Henry V.	“ “	1 10 0	0 1 0	1 9 0	1 10 $11\frac{1}{5}$
1425	4 Henry VI.	“ “	1 10 0	0 1 0	1 9 0	1 10 $11\frac{1}{5}$
1464	4 Edward IV.	“ “	1 17 6	0 4 6	1 13 0	1 15 $2\frac{1}{5}$
1465	5 “ “	“ “	1 17 6	0 4 6	1 13 0	1 15 $2\frac{1}{5}$
1470	49 Henry VI.	“ “	1 17 6	0 2 0	1 15 6	1 17 $10\frac{2}{5}$
1482	22 Edward IV.	“ “	1 17 6	0 1 6	1 16 0	1 18 $4\frac{4}{5}$
1483	1 Rich. III.	“ “	1 17 6	0 1 6	1 16 0	1 18 $4\frac{4}{5}$
1485	1 Henry VII.	“ “	1 17 6	0 1 6	1 16 0	1 18 $4\frac{4}{5}$
1509	1 Henry VIII.	“ “	1 17 6	0 1 0	1 16 6	1 18 $11\frac{1}{5}$
1527	18 “ “	“ “	2 0 0	0 1 $0\frac{4}{5}$	1 18 $11\frac{1}{5}$	1 18 $11\frac{1}{5}$
“	“ “ “	“ “	2 5 0	0 1 0	2 4 0	2 14 0
. .	. . . .	. .	. .	. .	. .	. .
1543	34 “ “	10 0	2 8 0	0 8 0	2 8 0	2 4 $4\frac{4}{5}$
1545	36 “ “	6 0	2 8 0	2 0 0	2 16 0	2 11 $9\frac{3}{5}$
1546	37 “ “	4 0	2 8 0	4 4 0	3 0 0	2 15 6
1547	1 Edward VI.	4 0	2 8 0	4 4 0	3 0 0	2 15 6
1549	3 “ “	6 0	3 12 0	4 0 0	3 4 0	2 19 $2\frac{2}{5}$
1551	5 “ “	3 0	3 12 0	. .	. .	. .
“	“ “ “	11 0	3 0 0	. .	. .	. .
“	“ “ “	. .	. .	. .	. .	. .
1552	6 “ “	11 1	3 0 0	0 1 0	2 19 0	2 19 $3\frac{1}{5}$
“	“ “ “	. .	. .	. .	. .	. .
1553	1 Mary,	11 0	3 0 0	0 1 0	2 19 0	2 19 $6\frac{2}{5}$
1560	2 Elizabeth,	11 2	3 0 0	0 1 6	2 18 6	2 18 6
“	“ “ “	. .	. .	. .	. .	. .
1600	43 “ “	“ “	3 2 0	0 2 0	3 0 0	3 0 0
“	“ “ “	. .	. .	. .	. .	. .
1604	2 James I.	“ “	3 2 0	0 2 6	2 19 6	2 19 6
1626	2 Charles I.	“ “	3 2 0	0 2 0	3 0 0	3 0 0
1666	18 Charles II.	“ “	3 2 0	0 0 0	3 2 0	3 2 0
1717	3 George I.	“ “	3 2 0	0 0 0	3 2 0	3 2 0
1816	56 George III.	“ “	3 6 0	0 4 0	. .	. .

ENGLISH MONEY. — ACCOUNT OF THE ENGLISH GOLD COINS; SHEWING THEIR VALUE; THE SEIGNORAGE OR PROFIT UPON THE COINAGE, AND THE PRICE PAID TO THE PUBLIC BY THE MINT, FOR THE POUND TROY OF STANDARD GOLD, FROM THE CONQUEST TO THE YEAR 1816. (THIS AND THE TWO FOLLOWING TABLES ARE TAKEN FROM PART II. OF ESSAYS ON MONEY, EXCHANGES, AND POLITICAL ECONOMY, *by Henry James.*)

A. D.	*Anno Regni.*	GOLD.				
		6 *Fineness of the goldin the coins.*	7 *Pound weight of such gold coined into*	8 *Profit or seignorage on the coinage.*	9 *Price paid to the public for the pound weight of gold.*	10 *Equal to the mint price for standard gold of 22 carats fine troy weight.*
		crts. gns.	£ *s. d.*	£ *s. d.*	£ *s. d.*	£ *s. d.*
1066	Conquest,	. .	. .	. .	. .	. .
1280	8 Edward I.	. .	. .	. .	. .	. .
1300	28 " "	. .	. .	. .	. .	. .
1344	18 Edward III.	23 3½	13 3 4	0 8 4	12 15 0	12 10 8
1349	23 " "	" "	14 0 0	0 11 8	13 8 4	13 3 9
1356	30 " "	" "	15 0 0	0 6 8	14 13 4	14 8 4
1394	18 Richard II.	" "	15 0 0	0 5 0	14 15 0	14 9 11
1401	3 Henry IV.	" "	15 0 0	0 5 0	16 15 0	14 9 11
1421	9 Henry V.	" "	16 13 4	0 5 0	16 8 4	16 2 9
1425	4 Henry VI.	" "	16 13 4	0 5 10	16 7 6	16 1 11
1464	4 Edward IV.	" "	20 16 8	2 10 0	18 6 8	18 0 5
1465	5 " "	" "	22 10 0	1 0 10	21 9 2	21 1 10
1470	49 Henry VI.	" "	22 10 0	0 13 0	21 17 0	21 9 7
1482	22 Edward IV.	" "	22 10 0	0 7 6	22 2 6	21 15 0
1483	1 Rich. III.	" "	22 10 0	0 7 6	22 2 6	21 15 0
1485	1 Henry VII.	" "	22 10 0	0 7 6	22 2 6	21 15 0
1509	1 Henry VIII.	" "	22 10 0	0 2 6	22 7 6	22 0 0
1527	18 " "	" "	24 0 0	0 2 8	23 17 4	22 0 0
"	" " "	" "	27 0 0	0 2 9	26 17 3	. .
. .	. . . . .	22 0	25 2 6	0 3 0	24 19 6	24 19 6
1543	34 " "	23 0	28 16 0	1 4 0	27 12 0	26 8 0
1545	36 " "	22 0	30 0 0	2 10 0	27 10 0	27 10 0
1546	37 " "	20 0	30 0 0	5 0 0	27 10 0	27 10 0
1547	1 Edward VI.	20 0	30 0 0	1 10 0	28 10 0	31 7 0
1549	3 " "	22 0	34 0 0	1 0 0	33 0 0	33 0 0
1551	5 " "	. .	. .	. .	. .	. .
"	" " "	23 3½	36 0 0	. .	. .	. .
"	" " "	22 0	33 0 0	. .	. .	. .
1552	6 " "	23 3½	36 0 0	0 2 9	35 17 3	. .
"	" " "	22 0	33 0 0	0 3 0	32 17 0	32 17 0
1553	1 Mary,	23 3½	36 0 0	0 3 0	35 17 0	33 0 8
1560	2 Elizabeth,	23 3½	36 0 0	0 5 0	35 15 0	. .
"	" " "	22 0	33 0 0	0 4 0	32 16 0	32 16 0
1600	43 " "	23 3½	36 10 0	0 10 0	36 0 0	. .
"	" " "	22 0	33 10 0	0 10 0	33 0 0	33 0 0
1604	2 James I.	22 0	37 4 0	1 10 0	35 14 0	35 14 0
1626	2 Charles I.	" "	41 0 0	1 1 5	39 18 7	39 18 7
1666	18 Charles II.	" "	44 10 0	0 0 0	44 10 0	44 10 0
1717	3 George I.	" "	46 14 6	0 0 0	46 14 6	46 14 6
1816	56 George III.	" "	46 14 6	0 0 0	46 14 6	46 14 6

ENGLISH MONEY. — ACCOUNT OF THE QUANTITY OF FINE SILVER COINED INTO 20*s.* OR THE POUND STERLING; THE QUANTITY OF STANDARD SILVER, OF 11*oz.* 2*dwts.* FINE, AND 18*dwts.* ALLOY, CONTAINED IN 20*s.* OR THE POUND STERLING, AND THE QUANTITY OF STANDARD SILVER WHICH WAS DELIVERED TO THE MINT, BY THE PUBLIC, FOR 20*s.* OF SILVER MONEY, IN THE DIFFERENT REIGNS, FROM THE TIME OF EDWARD I. TO THE REIGN OF GEORGE III. AND AN ACCOUNT OF THE PROPORTIONATE VALUE OF FINE GOLD TO FINE SILVER, ACCORDING TO THE NUMBER OF GRAINS CONTAINED IN THE COINS. CALCULATED IN GRAINS AND 1000*th* PARTS TROY WEIGHT.

A. D.	*Anno Regni.*	SILVER.			*Proportionate value of fine gold to fine silver, according to the quantity of each metal contained in the coins.*
		Number of grains of fine silver in 20 shillings, or the pound sterling, as coined by the mint indentures.	*Number of grains of standard silver, 14oz. 2dwts. fine in 20s. or the pound sterling, as coined by the mint indentures.*	*Number of grains of standard silver which 20s. were worth, according to the price paid by the mint to the public.*	
		Grains.	*Grains.*	*Grains.*	*Gold to Silver.*
1066	Conquest,	4995·000	5400·000	. .	. . .
1280	8 Edward I.	4995·000	5400·000	5684·210	. . .
1344	18 Edward III.	4933·333	5333·333	5684·210	1 to 12·091
1349	23 " "	4440·000	4800·000	5082·352	1 " 11·571
1356	30 " "	3996·000	4320·000	4468·965	1 " 11·558
1401	3 Henry IV.	3996·000	4320·000	4468·965	1 " 11·158
1421	9 Henry V.	3330·000	3600·000	3724·137	1 " 10·331
1464	4 Edward IV.	2664·000	2880·000	3272·727	1 " 10·331
1465	5 " "	2664·000	2880·000	3272·727	1 " 11·158
1470	49 Henry VI.	2664·000	2880·000	3042·253	1 " 11·158
1482	22 Edward IV.	2664·000	2880·000	3000·000	1 " 11·153
1509	1 Henry VIII.	2664·000	2880·000	2958·904	1 " 11·158
1527	18 " "	2368·000	2560·000	2618·181	1 " 11·268
1543	34 " "	2000·000	2162·162	2594·594	1 " 10·434
1545	36 " "	1200·000	1297·297	2223·938	1 " 6·818
1546	37 " "	800·000	864·864	2075·675	1 " 5·000
1547	1 Edward VI.	800·000	864·864	2075·675	1 " 5·000
1549	3 " "	800·000	864·864	1945·945	1 " 5·151
1551	5 " "	400·000	. .	. .	. . .
"	" " "	1760·000	1902·702	. .	1 " 11·000
1552	6 " "	1768·000	1911·351	1943·757	1 " 11·050
1553	1 Mary,	1760·000	1902·702	1935·050	1 " 11·057
1560	2 Elizabeth,	1776·000	1920·000	1969·230	1 " 11·100
1600	43 " "	1718·709	1858·064	1920·000	1 " 10·904
1604	2 James I.	1718·709	1858·064	1936·134	1 " 12·109
1626	2 Charles I.	1718·709	1858·064	1920·000	1 " 13·346
1666	18 Charles II.	1718·709	1858·064	1858·064	1 " 14·485
1717	3 George I.	1718·709	1858·064	1858·064	1 " 15·209
1816	56 George III.	1614·545	1745·454	. .	1 " 14·287

ENGLISH MONEY. — Account of the quantity of fine gold coined into 20*s.* or the pound sterling; the quantity of standard gold of 11*oz.* 2*dwts.* fine, and 18*dwts.* alloy, contained in 20*s.* or the pound sterling, and the quantity of standard gold which was delivered to the mint, by the public, for 20*s.* of silver money, in the different reigns, from the time of Edward I. to the reign of George III. And an account of the proportionate value of fine gold to fine silver, according to the price paid by the mint to the public. Calculated in grains and 1000*th* parts troy weight.

A. D.	Anno Regni	GOLD.			Proportionate value of fine gold to fine silver, according to the mint price, or the presumed market value of gold.
		Number of grains of fine gold in 20s. or the pound sterling as coined by the mint indentures.	Number of grains of standard gold, 22 carats fine in 20s. or the pound sterling as coined by the mint indentures.	Number of grains of standard gold which 20s. were worth, according to the price paid by the mint to the public.	
		Grains.	*Grains.*	*Grains.*	*Gold to Silver.*
1066	Conquest,	. .	. .	. .	. . .
1280	8 Edward I.	. .	. .	. .	. . .
1344	18 Edward III.	407·990	445·080	459·625	1 to 12·479
1349	23 " "	383·705	418·588	436·777	1 " 11·741
1356	30 " "	358·125	390·682	399·561	1 " 11·286
1401	3 Henry IV.	358·125	390·682	397·303	1 " 11·350
1421	9 Henry V.	322·312	351 613	356·963	1 " 10·527
1464	4 Edward IV.	257·850	281·291	319·648	1 " 10·331
1465	5 " "	238·750	260·454	273·109	1 " 11·983
1470	49 Henry VI.	238·750	260·454	268·202	1 " 11·446
1482	22 Edward IV.	238·750	260·454	264·869	1 " 11·429
1509	1 Henry VIII.	238·750	260·454	261·909	1 " 11·400
1527	18 " "	210·149	229·253	230·630	1 " 11·455
1543	34 " "	191·666	209·090	218·181	1 " 12·000
1545	36 " "	176·000	192·000	209·454	1 " 10·714
1546	37 " "	160·000	174·545	209·454	1 " 10·000
1547	1 Edward VI.	160·000	174·545	183·732	1 " 11·400
1549	3 " "	155·294	169·412	174·545	1 " 11·250
1551	5 " "	. .	. .	. .	. . .
"	" " "	160·000	174·545	. .	. . .
1552	6 " "	160·000	174·545	175·342	1 " 11·186
1553	1 Mary,	159·166	173·636	174·369	1 " 11·198
1560	2 Elizabeth,	160·000	174·545	175·609	1 " 11·315
1600	43 " "	157·612	171·940	174·545	1 " 11·100
1604	2 James I.	141·935	154·838	161·344	1 " 12·109
1626	2 Charles I.	128·780	140·487	144·255	1 " 13·431
1666	18 Charles II.	118·651	129·438	129·438	1 " 14·485
1717	3 George I.	113·001	123·274	123·274	1 " 15·209
1816	56 George III.	113·001	123·274	123·274	. . .

SCOTS MONEY.—Account of the number of Pounds, Shillings, and Pennies Scots, which have been coined out of One Pound Weight of Silver, at different times; with the degree of Purity of such Silver, or its fineness from the year 1107 to the year 1601. (*From Cardonnell's* Numismata Scotiæ, p. 24.)

A. D.	*Anno Regni.*		*Purity.*		*Alloy.*		*Value of money coined out of a lb. of silver.*		
			oz.	*pw.*	*oz.*	*pw.*	£	*s.*	*d.*
From 1107 to 1296	Alexander I. David I. William Alexander II. Alexander III. John Baloil,		11	2	0	18	1	0	0
From 1306 to 1329	Robert I.		11	2	0	18	1	1	0
1366	David II.	38	11	2	0	18	1	5	0
1377		39	11	2	0	18	1	9	4
From 1371 to 1390	Robert II.		11	2	0	18	1	9	4
1393	Robert III.	4	11	2	0	18	1	12	0
1424	James I.	19	11	2	0	18	1	17	6
1451	James II.	15	11	2	0	18	3	0	4
1456		20	11	2	0	18	4	16	0
1475	James III.	16	11	2	0	18	7	0	4
1484		24	11	2	0	18	7	0	0
1488 1489	James IV.	1 2	11	2	0	18	7	0	0
1529	James V.	16	11	0	1	0	9	12	0
1544	Mary,	3	11	0	1	0	9	12	0
1556		14	11	0	1	0	13	0	0
1565		23	11	0	1	0	18	0	0
1567	James VI.	1	11	0	1	0	18	0	0
1571		5	9	0	3	0	16	14	0
1576		10	8	0	4	0	16	14	0
1579		13	11	0	1	0	22	0	0
1581		15	11	0	1	0	24	0	0
1597		31	11	0	1	0	30	0	0
1601		35	11	0	1	0	36	0	0

English Coinage.—The first Coinage in England was under the Romans at Camulodunum, or Colchester. English Coin was of different shapes, as square, oblong, and round, until the middle ages, when round Coin only was used.

1257. The first Gold Coin struck.
1357. Gold Florin struck.—Edward III.
1494. Old Sovereigns first minted.
1503. Shillings first coined.
1553. Crowns and Half-Crowns.
1560. Irish Shillings.
1631. Modern Milling introduced.
1665. Half-pence and Farthings.
1673. Guineas first coined.
1673. Double Guineas "
1673. Five Guineas "
1673. Half-Guineas "
1716. Quarter-Guineas.—3 Geo. III.
1797. Seven Shilling Pieces Coined.
1797. Two-Penny Copper Pieces "
1816. Sovereigns.—New Coinage.

SCOTS MONEY. — Account of the number of Pounds, Shillings, and Pennies Scots, which have been coined out of One Pound Weight of Gold; with the degree of their Purity, and the proportion that Gold bore to the Silver.

A. D.	*Anno Regni.*	*Fineness.*	*Alloy.*	*Value of the coin coined out of one pound of gold.*	*Pound of pure gold weighed of pure silver.*
		oz. pw. gr.	*oz. pw. gr.*	£ *s. d.*	*lb.oz.pw.gr.*
1371, &c.	Robert II.	11 18 18	0 1 6	17 12 0	11 1 17 22
1390, &c.	Robert III.	11 18 18	0 1 6	19 4 0	11 1 17 22
1424	James I. 19	11 18 18	0 1 6	22 10 0	11 1 17 22
1451	James II. 15	11 18 18	0 1 6	33 6 0	9 8 4 14
1456	20	11 18 18	0 1 6	50 0 0	9 8 4 14
1475	James III. 16	11 18 18	0 1 6	78 15 0	10 2 0 20
1484	24	11 18 18	0 1 6	78 15 0	10 5 7 9
1488	James IV. 1	11 18 18	0 1 6	78 15 0	10 5 7 9
1529	James V. 16	11 18 18	0 1 6	108 0 0	10 5 7 9
1556	Mary, 14	11 0 0	1 0 0	144 0 0	10 5 8 6
1577	James VI. 10	11 0 0	1 0 0	240 0 0	10 5 8 6
1579	13	10 10 0	1 10 0	240 0 0	11 5 2 20
1597	31	11 0 0	1 0 0	360 0 0	12 0 0 0
1601	35	11 0 0	1 0 0	432 0 0	12 0 0 0
1633	Charles I. 9	11 0 0	1 0 0	492 0 0	13 2 7 11

ENGLISH PAPER MONEY. — Account of the average market price of Bullion in every year from 1800 to 1821, (taken from papers laid before the House of Commons,) of the average value per cent. of the Paper Currency, estimated from the market price of Gold for the same period, and of the average depreciation of the Paper Currency.

Years.	*Av'rge price of gold per ounce.*	*Average per cent. of the valuation of the currency*	*Average depreciation per cent.*	*Years.*	*Av'rge price of gold per ounce.*	*Average per cent. of the valuation of the currency.*	*Average depreciation per cent.*
	£ *s. d.*	£ *s. d.*	£ *s. d.*		£ *s. d.*	£ *s. d.*	£ *s. d.*
1800	3 17 10½	100 0 0	Nil.	1811	4 4 6	92 3 2	7 16 10
1801	4 5 0	91 12 4	8 7 8	1812	4 15 6	79 5 3	20 14 9
1802	4 4 0	92 14 2	7 5 10	1813	5 1 0	77 2 0	22 18 0
1803	4 0 0	97 6 10	2 13 2	1814	5 4 0	74 17 6	25 2 6
1804	4 0 0	97 6 10	2 13 2	1815	4 13 6	83 5 9	16 14 3
1805	4 0 0	97 6 10	2 13 2	1816	4 13 6	83 5 9	16 14 3
1806	4 0 0	97 6 10	2 13 2	1817	4 0 0	97 6 10	2 13 2
1807	4 0 0	97 6 10	2 13 2	1818	4 0 0	97 6 10	2 13 2
1808	4 0 0	97 6 10	2 13 2	1819	4 1 6	95 11 0	4 9 0
1809	4 0 0	97 6 10	2 13 2	1820	3 19 11	97 8 0	2 12 0
1810	4 10 0	86 10 6	13 9 6	1821	3 17 10½	100 ·0 0	Nil.

Coining. — This operation was originally performed by the metal being placed between two steel dies struck by a hammer. In 1553, a mill was invented by Antonie Brucker, and introduced into England, in the year 1562. An engine for coining was invented by Balancier, in 1617. The great improvements of the art were effected by Boulton and Watt, at Soho, in 1788, and subsequently. The art was rendered perfect by the creation of the present costly machinery at the Mint in London, commenced in 1811. — *Haydn.*

GOLD COINS OF DIFFERENT COUNTRIES. — A TABLE CONTAINING THE ASSAYS, WEIGHTS, AND VALUES OF THE PRINCIPAL GOLD COINS OF ALL COUNTRIES, COMPUTED ACCORDING TO THE MINT PRICE OF GOLD IN ENGLAND, AND FROM ASSAYS MADE BOTH AT LONDON AND PARIS, WHICH HAVE BEEN FOUND TO VERIFY EACH OTHER.

The London Assays in this Table have been made by Robert Bingley, Esq., the King's Assay Master of the Mint, and those at Paris by Pierre Frederic Bonneville, Essayeur du Commerce, as published in his elaborate work on the coins of all nations.

Specimens of all the foreign coins brought to London for commercial purposes have been supplied for this Table from the Bullion Office, Bank of England, by order of the Bank Directors, and have been selected by John Humble, Esq., the chief of that office, who also examined the Tables in their progress. It may likewise be added, that the Mint Reports of these commercial coins are chiefly from average assays; and that all the computations have been carefully verified by different calculators. (Note by Dr. Kelly to the second edition of the *Cambist*, published in 1821.)

Denomination of Coins.		*Assay.*	*Weight.*	*Standard Weight.*	*Cont'ts in pure Gold.*	*Value in Sterling.*
		car. gr.	*dts. gr.*	*dwt.gr.mi.*	*grains.*	*s. d.*
Austrian Dominions	Souverain, ...	W. 0 0¼	3 14	3 13 15	78·6	13 10·92
	Double Ducat, . . .	B. 1 2¾	4 12	4 20 5	106·4	18 9·97
	Ducat Kremnitz, Hungar'n.	B. 1 3	2 6¾	2 10 3	53·3	9 6·91
Bavaria.	Carolin, ...	W. 3 2	6 5¼	5 5 10	115	20 4·23
	Max d'or, or Maximilian,	W. 3 2¼	4 4	3 14 0	77	13 7·44
	Ducat, ...	B. 1 2¼	2 5¾	2 19 11	62·8	9 4·12
Berne.	Ducat, (double in prop'n.)	B. 1 1¾	1 23	2 2 1	45·9	8 1·48
	Pistole, ...	W. 0 1½	4 21	4 19 0	105·5	18 7·86
Brunswick.	Pistole (double in prop.),	W. 0 1½	4 21¼	4 19 5	105·7	18 8·48
	Ducat, ...	B. 1 0½	2 5¾	2 8 9	51·8	9 2
Cologne.	Ducat, ...	B. 1 2	2 5¾	2 9 8	62·6	9 3·70
Denmark.	Ducat current, . .	W. 0 3¾	2 0	1 21 19	42·2	7 6·62
	Ducat specie, . .	B. 1 2	2 5⅔	2 9 8	52·6	9 3·70
	Christian d'or, . .	W. 0 1	4 7	4 5 16	93·3	16 6·14
England.	Guinea, ...	Stand.	6 9½	5 9 10	118·7	21 0
	Half Guinea, . . .	Stand.	2 16¾	2 16 15	69·3	10 6
	Seven Shilling Piece, .	Stand.	1 19	1 19 0	39·6	7 0
	Sovereign, ...	Stand.	5 3¼	5 5 5	113·1	20 0
France.	Double Louis (before 1786),	W. 0 2	10 11	10 5 6	224·9	39 9·64
	Louis, ...	W. 0 2	5 6½	5 2 12	112·4	19 10·71
	Double Louis (since 1786),	W. 0 1½	9 20	9 15 19	212·6	37 7·53
	Louis, ...	W. 0 1½	4 22	4 19 19	106·3	18 9·75
	D'ble Napoleon or 40 francs	W. 0 1¾	8 7	8 3 0	179	31 8·36
	Napoleon, or 20 francs, .	W. 0 1¾	4 3½	4 1 10	89·7	15 10·5
	New Louis (double, &c.) same as the Napoleon,					
Frankfort-on-the-Maine.	Ducat, .	B. 1 2½	2 5¾	2 9 14	62	9 4·34
Geneva.	Pistole, old, . . .	W. 0 2	4 7¼	4 4 18	92·5	16 4·45
	Pistole, new, . . .	W. 0 0½	3 15¾	3 15 4	80	14 1·9
Genoa.	Sequin, ...	B. 1 3½	2 5¾	2 10 6	53·4	9 6·41
Hamburgh.	Ducat (double in prop.),	B. 1 2½	2 5¾	2 9 14	52·9	9 4·35
Hanover.	George d'or, . . .	W. 0 1¼	4 6½	4 5 3	92·6	16 4·66
	Ducat, ...	B. 1 3¼	2 5¾	2 10 3	53·3	9 5·19
	Gold Florin (d'ble in prop.),	W. 3 0½	2 2	1 18 6	39	6 10.83
Holland.	Double Ryder, . . .	Stand.	12 21	12 21 0	283·2	50 1·46
	Ryder, ...	Stand.	6 9	6 9 0	140·2	24 9·75
	Ducat, ...	B. 1 2¼	2 5¾	2 9 12	52·8	9 4·13

Denomination of Coins.		Assay.	Weight.	Standard Weight.	Cont'ts in pure Gold.	Value in Sterling.	
		car. gr.	dwt. gr.	dwt. gr. mi.	grains.	s.	d.
Malta.	Double Louis, . .	W. 1 3¼	10 16	9 18 18	215·3	38	1·25
	Louis, ...	W. 1 3	5 8	4 21 16	108	19	1·37
	Demi Louis, . . .	W. 1 2¼	2 16	2 11 3	54·5	9	7·75
Milan.	Sequin, ...	B. 1 3	2 5¾	2 10 0	53·2	9	4·98
	Doppia or Pistole, . .	W. 0 1	4 1½	4 0 8	88·4	15	7·74
	Forty Lire piece of 1808,	W. 0 1¾	8 8	8 4 0	179·7	31	9·64
Naples.	Six Ducat piece of 1783,	W. 0 2¼	5 16	5 12 18	121·9	21	6·89
	Two Ducat, or Sequin 1762,	W. 1 2¾	1 20¼	1 16 6	37·4	6	7·42
	Three Ducat, or Oncetta of 1818,	B. 1 3½	2 10¼	2 15 1	58·1	10	3·40
Netherlands.	Gold Lion, or 14 Florins,	Stand.	5 7¾	5 7 16	117·1	20	8·69
	Ten Florin piece (1820),	W. 0 1¾	4 7¾	4 5 15	93·2	16	5·93
Parma.	Quadruple Pistole, .	W. 1 0	18 9	17 12 18	386	68	3·78
	Pistole or Doppia of 1787,	W. 0 3	4 14	4 10 4	97·4	17	2·85
	Ditto of 1796, . .	W. 1 0¼	4 14	4 8 14	95·9	16	11·67
	Maria Theresa (1818), .	W. 0 1¾	4 3½	4 1 10	89·7	15	10·5
Piedmont.	Pistole coined since 1785,	W. 0 1¼	5 20	6 17 0	125·6	22	2·75
	Sequin (½ in proportion),	B. 1 2½	2 5¾	2 9 12	52·9	9	4·34
	Carlino, coined since 1785,	W. 0 1¼	29 6	28 20 0	634·4	112	3·33
	Piece 20 f'cs, or Marengo,	W. 2 0	4 3¼	3 18 4	82·7	14	7·63
Poland.	Ducat, ...	B. 1 2½	2 5¾	2 9 12	52·9	9	4·34
Portugal.	Dobraon of 24,000 rees, .	Stand.	34 12	34 12 0	759	134	3·96
	Dobra of 12,800 rees, .	Stand.	18 6	18 6 0	401·5	71	0·70
	Moidore or Lisbonine, .	Stand.	6 22	6 22 0	152·2	26	11·24
	Piece of 16 testoons, or 1,600 rees, . . .	W. 0 0⅜	2 6	2 5 14	49·3	8	8·70
	Old Crusado of 400 rees,	W. 0 0½	0 15	0 14 18	13·6	2	4·88
	New Crusado of 480 rees,	W. 0 0⅝	0 16¼	0 16 2	14·8	2	7·43
	Milree (coined 1755),	Stand.	0 19¾	0 19 15	18·1	3	2·44
Prussia.	Ducat of 1748, . .	B. 1 2½	2 5¾	2 9 14	52·9	9	4·34
	Ducat of 1787, . .	B. 1 2	2 5¾	2 9 6	52·6	9	3·71
	Frederick (double) 1769,	W. 0 1¾	8 14	8 9 18	185	32	8·90
	Frederick (single) 1778,	W. 0 1½	4 7	4 5 4	92·8	16	5·08
	Frederick (double) 1800,	W. 0 2	8 14	8 9 6	184·5	32	7·84
	Frederick (single) 1800,	W. 0 2	4 7	4 4 13	92·2	16	3·42
Rome.	Sequin (coined since 1760)	B. 1 3½	2 4½	2 9 0	52·2	9	2·86
	Scudo of the Republic,	W. 0 1¾	17 0¼	16 16 6	367	64	11·43
Russia.	Ducat of 1796, . .	B. 1 2½	2 6	2 10 0	53·2	9	4·98
	Ducat of 1763, . .	B. 1 2	2 5¾	2 9 8	52·6	9	3·71
	Gold ruble of 1756, .	Stand.	1 0½	1 0 10	22·5	3	11·78
	Ditto of 1799, . .	W. 0 0¼	0 18¾	0 18 14	17·1	3	0·31
	Gold Poltin of 1777, .	Stand.	0 9	0 9 0	8·2	1	5·41
	Imperial of 1801, . .	B. 1 2¼	7 17¼	8 6 8	181·9	32	2·31
	Half Imperial of 1801, .	B. 1 2¼	3 20½	4 3 4	90·9	16	1·05
	Ditto of 1818, . .	B. 0 0⅛	4 3½	4 3 12	91·3	16	1·98
Sardinia.	Carlino (½ in proportion),	W. 0 2¾	10 7½	9 23 16	219·8	30	8·10
Saxony.	Ducat of 1784, . .	B. 1 2	2 5¾	2 9 8	52·6	9	3·71
	Ducat of 1797, . .	B. 1 2½	2 5¾	2 9 14	52·9	9	4·34
	Augustus of 1754, . .	W. 0 2⅝	4 6½	4 3 8	91·2	16	1·69
	Augustus of 1784, . .	W. 0 1¾	4 6½	4 4 12	92·2	16	3·81

Denomination of Coins.		*Assay.*	*Weight.*	*Standard Weight.*	*Cont'ts in pure Gold.*	*Value in Sterling.*
		car. gr.	*dwt. gr.*	*dwt. gr. mi.*	*grains.*	*s. d.*
Sicily.	Ounce of 1751, . .	W. 1 2¼	2 20½	2 15 8	58·2	10 3·60
	Double Ounce of 1758, .	W. 1 2	5 17	5 7 14	117	20 8·48
Spain.	Doubloon of 1772, . .	W. 0 2¼	17 8½	61 21 16	372	65 10·05
	Quadruple Pistole of 1801,	W. 1 1	17 9	16 9 6	360·5	63 9·62
	Pistole of 1801, . .	W. 1 1	4 8¼	4 2 6	90·1	15 11·35
	Coronilla, gold dol. of 1801,	W. 1 2½	1 3	1 0 18	22·8	4 0·42
Sweden.	Ducat, ...	B. 1 2	2 5	2 8 12	51·9	9 2·22
Switzerland.	Pistole, Helvetic, of 1800,	W. 0 1½	4 21½	4 19 9	105·9	18 8·91
Treves.	Ducat, ...	B. 1 2	2 5¾	2 9 8	52·6	9 3·71
Turkey.	Sequin of 1773, . .	W. 2 2½	2 5¾	1 23 6	43·3	7 7·94
	Sequin fonducli, 1789, .	W. 2 3¼	2 5¾	1 22 16	42·9	7 7·11
	Halfmisseir (1818), .	W. 5 3½	0 18¼	0 13 5	12·16	2 1·82
	Sequin fonducli, . .	W. 2 3	2 5	1 22 7	42·5	7 6·26
	Yermeebeshlek, . .	B. 0 3½	2 1¾	3 4 13	70·3	12 5·30
Tuscany.	Zecchino or sequin, .	B. 1 3¾	3 5¾	2 10 14	53·6	9 5·83
	Ruspone of Etruria, .	B. 1 3⅞	6 17¼	7 7 13	161	28 5·93
U. States.	Eagle (½ and ¼ in prop.),	W. 0 0½	11 6	11 4 8	246·1	43 6·66
Venice.	Zecchino or sequin, .	B. 1 3¼	2 6	2 10 10	53·6	9 5·83
Wirtemb'gh.	Carolin, . . .	W. 3 2	6 3½	5 4 0	113·7	20 1·47
	Ducat, . . .	B. 1 2	2 5	2 8 12	51·9	9 2·22
Zurich.	Ducat, ...	B. 1 2	2 5¾	2 9 8	52·6	9 3·71
	EAST INDIES.					
East India.	Rupee, Bombay (1818),	B. 0 0½	7 11	7 11 13	164·7	29 1·78
	Rupee of Madras (1818),	Stand.	7 12	7 12 0	165	29 2·42
	Pagoda, Star, . .	W. 3 0	2 4¾	1 21 11	41·8	7 4·77

SILVER COINS OF DIFFERENT COUNTRIES.—A TABLE CONTAINING THE ASSAYS, WEIGHTS, AND VALUES OF THE PRINCIPAL SILVER COINS OF ALL COUNTRIES, COMPUTED AT THE RATE OF 5*s.* 2*d.* PER OUNCE STANDARD, FROM ASSAYS MADE BOTH AT THE LONDON AND PARIS MINTS.

Denomination of Coins.		*Assay.*	*Weight.*	*Standard Weight.*	*Cont'ts in pure Silver.*	*Value in Sterling.*
		oz. dwt.	*dwt. gr*	*dwt. gr. mi.*	*grains.*	*s. d.*
Austria.	Rixdollar Francis II., 1800,	W. 1 5	18 1	16 0 4	355·5	4 1·64
	Rixdollar of Hungary,	W. 1 2	18 1	16 6 1	360·9	4 2·39
	Half-Rixdollar or Florin,	W. 1 3	9 0½	8 2 1	179·6	2 1·07
	Copftsuck or 20 creutzer,	W. 4 3	4 6½	2 16 3	59·4	0 8·29
	17 Creutzer piece,	W. 4 8	4 0	2 9 18	53·5	0 7·47
	Halbe copf, or 10 creutzer,	W. 5 5	2 11	1 7 1	28·8	0 4·01
Baden.	Rixdollar,	W. 1 4	18 2	16 3 1	358·1	4 2
Bavaria.	Rixdollar of 1800 (½ in pro),	W. 1 4⅓	17 12	15 13 13	345·6	4 0·25
	Copftsuck,	W. 4 3	4 6½	2 16 3	59·4	0 8·29
Bern.	Patagon or crown,	W. 0 7	18 22	18 7 14	406·7	4 8·79
	Piece of 10 Batzen,	W. 1 2	5 3	4 14 17	102·5	1 2·31
Bremen.	Piece of 48 Grotes,	W. 2 2	11 0	8 22 1	198	2 3·64
Brunswick.	Rixdollar, *Convention,*	W. 1 3	18 1	16 4 4	359·2	4 2·15
	Half-rixdollar,	W. 1 3	9 0½	8 2 2	179·6	2 1·07
	Gulden, of ⅔, fine, 1764,	B. 0 16	8 10½	9 1 1	200·8	2 4·03
	Gulden, common, of 1764,	W. 1 2	9 0	8 2 10	180	2 1·13

Denomination of Coins.		*Assay.*	*Weight.*	*Standard Weight.*	*Cont'ts in pure Silver.*	*Value in Sterling.*
		oz. dwt.	*dwt. gr.*	*dwt. gr. mi.*	*grains.*	*s. d.*
	Gulden, ditto, of 1795,	W. 2 2	11 1¼	8 23 7	199·1	2 3·80
	Half-Gulden, of ⅓, of 1764,	W. 1 2	4 12	4 1 5	90	1 0·56
Denmark.	Ryksdaler, specie of 1798,	W. 0 13	18 14	17 11 17	388·4	4 6·23
	New piece of 4 marks,	W. 0 12	12 9	11 16 14	259·8	3 0·27
	Half-ryksdaler,	W. 0 13	9 7	8 17 8	194·2	2 3·11
	Mark, specie, ⅙ ryksdaler,	W. 3 1	4 0	2 21 12	64·4	0 7·59
	Rixd'lr, Sleswig & Holst'n,	W. 0 12	18 13	17 12 6	389·4	4 6·37
	Piece of 24 skillings,	W. 4 7	5 2½	3 2 10	68·9	0 9·62
England.	Crown (old),	Stand.	19 8½	19 8 10	429·7	5 0
	Half-crown,	Stand.	9 16¼	9 16 5	214·8	2 6
	Shilling,	Stand.	3 21	3 21 0	85·9	1 0
	Sixpence,	Stand.	1 22½	1 22 10	42·9	0 6
	Crown (new),	Stand.	18 4¼	18 4 7	403·6	4 8·36
	Half-crown,	Stand.	9 2	9 2 4	201·8	2 4·18
	Shilling,	Stand.	3 15¼	3 15 6	80·7	0 11·27
	Sixpence,	Stand.	1 19¾	1 19 14	40·3	0 5·63
France.	Ecu of 6 livres,	W. 0 7	18 18	18 7 16	403·1	4 8·28
	Demi ecu,	W. 0 7	9 9	9 1 18	201·5	2 4·13
	Piece of 24 sous,	W. 0 7	3 20	3 16 19	83·4	0 11·64
	Piece of 30 sous,	W. 3 8	6 12	4 12 4	100·2	1 1·99
	Piece of 5 francs, Convn't,	W. 0 10½	16 0	15 5 14	338·3	3 11·24
	Piece of 5 francs, of 1808,	W. 0 7	16 1	15 12 4	344·9	4 0·16
	Piece of 2 francs, of 1808,	W. 0 7	6 11	6 6 2	138·8	1 7·38
	Franc of 1809,	W. 0 7	3 5½	3 3 1	69·4	0 9·69
	Demi franc,	W. 0 8½	1 15	4 13 6	34·7	0 4·84
	Franc (Louis) of 1818, same as franc of 1809.					
Geneva.	Patagon,	W. 1 0	17 9	15 19 8	351	4 1·03
	Piece of 15 sous of 1794,	W. 2 6	2 1¼	1 15 1	36·1	0 5·04
Genoa.	Scudo, of 8 lire, of 1796,	W. 0 8	21 9	20 14 10	457·4	5 3·87
	Scudo of Ligurian Repub..	W. 0 9½	21 9	20 11 2	454·3	5 3·43
Hamburgh.	Rixdollar, specie,	W. 0 10	18 18	17 21 12	397·5	4 7·49
	Double mark, 32 schillings	W. 2 3	11 18	9 11 8	210·3	2 5·36
	Piece of 8 schillings,	W. 3 12	3 8¼	2 6 4	50·1	0 6·99
	Piece of 4 schillings,	W. 4 6	2 2	1 6 12	28·3	0 3·95
Hanover.	Rixdollar, Constitution,	W. 0 9	18 19	18 0 14	400·3	4 7·89
	Florin, or piece of ⅔, fine,	B. 0 16	8 10	9 0 10	200·3	2 3·96
	Half-Florin, ditto. ⅓, do.,	B. 0 16	4 4	4 11 4	99·2	1 1·85
	Quarter, do. 6 groschen, do.	B. 0 16	2 1	2 4 10	48·6	0 6·78
Hanover.	Florin, or piece of ⅔, base,	W. 2 1	11 0¾	8 23 15	199·6	2 3·87
Hesse Cassel.	Rixdollar, Convention,	W. 1 6	18 1	15 22 6	353	4 1·39
	Florin, or piece of ⅔,	W. 1 6	9 0½	7 23 3	176·8	2 0·68
	Thaler of 1789,	W. 0 10½	12 7¼	11 17 5	259·7	3 0·26
	Ecu, *Convention*, (1815),	W. 1 6	17 23¾	15 21 2	349·3	4 0·77
	Bon Gros,	W. 6 14	1 4	0 11 5	10·3	0 1·43
Holland.	Ducatoon,	B. 0 3	20 22	21 4 15	471·6	5 5·85
	Piece of 3 florins,	W. 0 2	20 7	20 2 12	446·4	5 2·33
	Rixdollars (the assay vary)	W. 0 16	18 6	16 20 8	375·9	4 4·99
	Half-rixdollar,	W. 0 16	9 0	8 8 8	185·4	2 1·89
	Florin or guilder(½ in pro),	W. 0 4½	6 18	6 14 14	146·8	1 8·49

Denomination of Coins.		*Assay.*			*Weight.*		*Standard Weight.*			*Cont'ts in pure Silver.*	*Value in Sterling.*	
			oz.	*dwt.*	*dwt.*	*gr.*	*dwt.*	*gr.*	*mi.*	*grains.*	*s.*	*d.*
Holland.	12 Stiver piece,	W.	0	16½	4	12	4	3	18	92·4	1	0·90
	Florin of Batavia,	W.	0	5½	6	13	6	9	2	141·6	1	7·77
	Rixdollar, 50 stv'rs, Holl'd,	W.	0	5½	17	0	16	13	18	367·9	4	3·37
Lubec.	Rixdollar, specie,	W.	0	13	18	18	17	15	12	391·9	4	6·72
	Double mark,	W.	2	3	11	18	9	11	8	210·3	2	5·36
	Mark,	W.	2	3	5	21	4	17	14	105·1	1	2·67
Lucca.	Scudo,	W.	0	3	17	0	16	18	10	372·3	4	3·98
	Barbone,	W.	3	3	1	20¼	1	7	14	29·3	0	4·09
Malta.	Ounce of 30 tari,	W.	2	5	19	1½	15	4	14	337·4	3	11·11
	2 Tari piece,	W.	2	19	1	2	0	19	2	17·7	0	2·47
Milan.	Scudo of 6 lire (½ in prop.),	W.	0	7	14	20¾	14	9	10	319·6	3	8·62
	Lira, new,	W.	4	10	4	0	2	9	0	52·8	0	7·37
	Lira, old,	W.	0	3	2	10	2	9	4	52·9	0	7·38
	Scudo of Cisalpine Repub.,	W.	0	7	14	21½	14	10	4	320·2	3	8·71
	Piece of 30 soldi of ditto.,	W.	2	18	4	17	3	11	8	77·2	0	10·78
Modena.	Scudo of 15 lire 1739,	W.	0	14	18	12½	17	8	9	385·2	4	5·78
	" of 5 lire of 1782,	W.	0	3	5	19	5	17	2	126·8	1	5·70
	" of 1796,	W.	3	3	18	1¾	12	22	12	287·4	3	4·13
Naples.	Ducat, new (½ in prop.),	W.	1	0	14	15	13	7	8	295·4	3	5·24
	Piece of 12 Carlini of 1791,	W.	1	0	17	15	16	0	18	356	4	1·71
	" of 1696,	W.	1	2	17	16¾	15	22	12	353·9	4	1·41
	" of 1805 (½ in prop.),	W.	1	2	17	18¼	15	23	18	355·2	4	1·60
	" of 10 Carlini (1818),	W.	1	2	14	18	13	7	0	295·1	3	5·20
Netherlands.	Ducatoon, old,	B.	0	4	21	0	21	9	0	474·6	5	6·27
	Ducatoon of Maria Theres.	W.	0	14	21	10	20	1	12	445·5	5	2·20
	Crown (½ &c. in prop),	W.	0	14	19	0	17	19	4	395·2	4	7·18
	5 Stiver piece,	W.	6	3	3	4	1	9	18	31·3	0	4·37
	Florin of 1790,	W.	0	14	5	23½	5	14	9	124·3	1	5·35
	Florin of 1816,	W.	0	7½	6	22	6	16	6	148·4	1	8·72
	Half florin,	W.	4	5½	5	11	3	9	2	75·0	0	10·46
Parma.	Ducat of 1784,	W.	0	9	16	11	15	18	18	350·6	4	0·95
	Ducat of 1796 (½ in prop.),	W.	0	5½	16	12¾	16	2	18	357·9	4	1·97
	Piece of 3 lire,	W.	1	4	4	14	4	2	2	90·7	1	0·66
Piedmont.	Scudo (1755) ½ &c. in prop.	W.	0	5½	22	14	22	0	10	488·9	5	8·26
	Scudo (1770) ½ & ¼ in prop.	W.	0	5	22	14	22	1	16	490·0	5	8·42
	Piece of 2 lire (1714),	W.	0	4½	7	20¼	7	16	13	170·8	1	11·85
	5 franc piece (1801),	W.	0	8	16	1½	15	11	12	343·7	3	11·99
Poland.	Rixdollar, old,	W.	1	2	18	1	16	6	0	360·8	4	2·38
	Rixdollar, new (1794),	W.	2	17	15	10½	11	11	6	254·3	2	11·51
	Florin, or gulden,	W.	4	2	6	0	3	18	16	84·0	0	11·72
Portugal.	New Crusado (1690),	W.	0	4	11	0	10	19	0	239·2	2	9·40
	" (1718),	W.	0	6½	9	8	9	1	0	200·2	2	3·95
	" (1795),	W.	0	7	9	9	9	1	18	201·6	2	4·15
	Doze vintems, or 240 rees,	W.	0	7	4	16	4	12	10	100·4	1	2·01
	Testoon (1799),	W.	0	7	2	0½	1	22	18	43·4	0	6·06
	New crusado (1809),	W.	0	4	9	3	8	23	0	198·2	2	4·67
	Seis vintems, or 120 rees,	W.	0	9	2	4½	2	2	8	46·6	0	6·50
	Testoon (1802),	W.	0	9	2	0	1	22	0	42·5	0	5·93
	Tres vintems, or 60 rees,	W.	0	9	1	2¼	1	1	4	23·3	0	3·25
	Half testoon (1802),	W.	0	9	0	23	0	22	0	20·4	0	2·84

Denomination of Coins.		*Assay.*	*Weight.*	*Standard Weight.*	*Cont'ts in pure Silver.*	*Value in Sterling.*
		oz. dwt.	*dwt. gr.*	*dwt. gr. mi.*	*grains.*	*s. d.*
Portuguese Colonies.	Piece of 8 macutes, Africa,	W. 0 9	7 12	7 4 14	159·8	1 10·31
	" of 6 " "	W. 0 9	5 13	5 7 12	118·0	1 4·47
	" of 4 " "	W. 0 9	3 16	3 12 8	78·1	0 10·90
Prussia.	Rix dollar, Prussian cur.,	W. 2 5	14 6½	11 9 0	252·6	2 11·27
	Rixdollar, *Convention*,	W. 1 3	18 1	16 4 2	359·0	4 2·13
	Florin, or piece of ⅔,	W. 2 3	11 2	8 22 8	198·4	2 3·70
	Florin of Silesia,	W. 2 2	9 11	7 16 0	170·3	1 11·78
	Drittel, or 8 good groschen,	W. 3 3	5 8¾	3 20 4	85·3	0 11·91
	Piece of 6 groschen.	W. 2 8	3 14	2 19 6	62·3	0 8·69
Rome.	Scudo, or crown,	W. 0 4	17 1	16 17 13	371·5	4 3·87
	Mezzo scudo or half-crown,	W. 0 4	8 12½	8 8 16	185·7	2 1·93
	Testone (1785),	W. 0 5	5 2	4 23 4	110·3	1 3·40
	Paolo (1785),	W. 0 4	1 17	1 16 4	37·2	0 5·19
	Grosso or half-paolo (1785),	W. 0 5	0 20½	0 20 0	18·5	0 2·58
	Scudo of the Roman Rep.,	W. 0 6	17 1	16 13 18	368·1	4 3·40
Russia.	Ruble of Peter the Great,	W. 2 7	18 1	14 1 8	312·1	3 7·58
	Ditto of Catherine I. (1725),	W. 2 4½	17 11	13 23 0	309·9	3 7·27
	Ditto of Peter II. (1727),	W. 2 12	18 5¾	13 23 4	310·0	3 7·28
	Ditto of Anne (1734),	W. 1 11	16 14½	14 6 16	317·2	3 8·29
	Ditto of Elizabeth (1750),	W. 1 7	16 12	14 11 16	321·8	3 8·93
	Ditto of Peter III. (1762),	W. 2 2	15 10	12 12 0	277·5	3 2·75
	Ditto of Catherine II. (1780)	W. 2 4	15 12	12 10 6	275·9	3 2·52
	Ditto of Paul (1799),	W. 0 14	13 12	12 15 10	280·8	3 3·21
	Ditto of Alexander (1802),	W. 0 13	13 1½	17 7 2	273·0	3 2·12
	Ditto of ditto. (1805),	W. 0 16	13 12	12 12 12	278·1	3 2·83
	20 Copeck piece (1767),	W. 2 2	3 10¾	2 19 0	62·6	0 8·74
	Ditto (1784),	W. 2 2	3 3	2 12 18	56·2	0 7·84
	15 Copeck piece (1778),	W. 2 2	2 6	1 19 18	40·5	0 5·65
	10 Copeck Piece,	W. 2 6	2 1	1 14 16	35·9	0 5·11
	Ditto (1798),	W. 0 14½	1 9	1 6 16	28·5	0 3·97
	Ditto (1802),	W. 0 13	1 8½	1 6 11	28·3	0 3·95
	5 Copeck piece (1801),	W. 0 13½	0 16½	0 15 10	15·3	0 2·13
Sardinia.	Scudo or crown (½ &c. pro)	W. 0 7	15 2½	14 15 0	324·7	3 9·34
Saxony.	Rixdollar, *Convention*,	W. 1 3	18 0	16 3 4	358·2	4 2·01
	Piece 16 groschen, Leipsic,	W. 2 2	9 9½	7 4 16	169·1	1 11·61
	Rixdollar cr'nt Saxe Gotha	W. 4 4½	18 1	11 4 2	248·1	2 10·64
	⅙ Thaler of 1804,	W. 4 11	3 11	2 0 19	45·3	0 6·32
	Ditto of 1808,	W. 4 11½	3 5½	1 21 8	42·1	0 5·87
	Ditto of Jerome Bonaparte,	W. 5 4	3 17	1 23 6	43·7	0 6·10
Sicily.	Scudo (½ in proportion),	W. 1 4	17 14	15 16 6	348·2	4 0·62
	Piece of 40 grains,	W. 1 2	5 21	5 7 2	117·5	1 4·40
Spain.	Dollar of late coinage,	W. 0 8	17 8	16 17 0	370·9	4 3·79
	Half-dollar, ditto,	W. 0 8	8 16	8 8 10	185·4	2 1·88
	Mexican peceta (1774),	W. 0 8	4 7½	4 3 16	92·3	1 0·88
	Real of Mex'cn plate (1775)	W. 0 8	2 3¾	2 1 20	46·1	0 6·43
	Peceta provin'cl of 2 reals,	W. 1 9½	3 18	3 6 0	72·2	0 10·08
	Real of new plate (1795),	W. 1 9½	1 21	1 15 0	36·1	0 5·04
Sweden.	Rixdollar (1762),	W. 0 12	18 20	17 19 10	395·5	4 7·22
	Rixdollar of late coinage,	W. 0 14⅓	18 17	17 12 0	388·5	4 6·28
Switzerland.	Ecu or rixdl'r of Lucerne,	W. 0 14½	17 8½	16 5 8	360·1	4 2·28

Denomination of Coins.		Assay.	Weight.	Standard Weight.	Cont'ts in pure Silver.	Value in Sterling.
		oz. dwt.	dwt. gr	dwt. gr. mi.	grains.	s. d.
Switzerland.	Old gulden, Lucerne (1714)	W. 1 19	8 14½	7 2 8	157·5	1 9·99
	Ecu of 40 batzen, Lucerne,	W. 0 5	19 0	18 13 14	412·3	4 9·57
	Half ditto.,	W. 1 2	9 20	8 20 12	196·7	2 3·46
	Florin, or 40 schillings,	W. 1 5	4 22	4 8 14	96·8	1 1·51
	Ecu, 40 batzen, Helv. Rep.	W. 0 6	18 23	18 10 14	409·5	4 9·18
	Ecu of 4 Franken (1801),	W. 0 7	18 23	18 8 12	407·6	4 9·18
Turkey.	Piastre of Selim, of 1801,	W. 5 6	8 6	4 7 8	95·7	1 1·36
	Piastre of Crim Tartary,	W. 6 13	10 5	4 2 4	90·9	1 0·69
	Piastre of Tunis (1787),	W. 6 5½	10 0	4 8 6	96·5	1 1·47
	Piastre (1818),	W. 5 14	6 6½	3 1 4	67·7	0 9·45
Tuscany.	Piece of 10 paoli of Etruria	W. 0 4	17 13½	17 5 18	382·9	4 5·46
	Scudo pisa of ditto (1803),	W. 0 2	17 12	17 8 4	385·0	4 5·76
	Piece of 10 lire ditto (1803),	B. 0 7	25 6	26 1 12	578·7	6 8·80
	Lira (1803),	B. 0 7	2 8	2 9 16	53·4	0 7·45
U. States.	Dollar, (1795) ½ &c. in pro.	W. 0 6½	17 8	16 19 16	373·5	4 4·15
	Dollar (1798),	W. 0 7	17 10½	16 21 6	374·9	4 4·35
	Dollar (1802),	W. 0 10½	17 10	16 14 0	368·3	4 3·42
	Dollar, average of 8 years,	W. 0 8½	17 8	16 16 0	370·1	4 3·68
	Dime or 1-10th d'lr. (1796),	W. 0 4	1 19½	1 18 14	39·5	0 5·71
	Half dime (1796),	W. 0 7	0 21¾	0 21 0	19·5	0 2·72
Venice.	Piece of 2 lire, 24 creutzers,	W. 8 4½	5 19½	1 12 2	33·4	0 4·66
	Ditto. moneta provinciale,	W. 8 3	5 13½	1 11 8	32·8	0 4·58
	Ditto of 2 lire (1802),	W. 8 4	5 6¼	1 8 19	30·5	0 4·25
Wirtemb'gh.	Rixdollar, specie,	W. 1 3	18 1	16 14 2	359·1	4 2·14
	Copftsuck,	W. 4 2	4 16½	2 16 12	59·8	0 8·35
	EAST INDIES.					
East India.	Rupee of Sicca, by E. I. Co.	B. 0 13	7 11½	7 22 0	175 8	2 0·54
	Rupee of Calcutta (1818),	Stand.	8 0	8 0 0	175·9	2 0·56
	Rupee of Bombay (1818),	W. 0 0¼	7 11	7 10 4	164·7	1 11·01
	Fanam, Cananore,	W. 0 0¼	1 11¾	1 11 10	32·9	0 4·5
	Fanam, Bombay, old,	B. 0 13	1 11¾	1 13 16	35·0	0 4·88
	Fanam, Pondicherry,	B. 0 5½	1 0½	1 1 2	22·8	0 3·18
	Fanam, ditto, double,	W. 0 3	1 18¾	1 18 2	39·0	0 5·44
	Gulden, Dutch E. India Co.	W. 0 7½	6 22	6 16 6	148·4	1 8·72

COURSE OF EXCHANGE.

London receives from or gives to

Amsterdam	12	3 Florins and Stivers	for	1 £ Sterling.
Hamburg	13	12 Mks and Schill.	"	1 £ Sterling.
Paris	25	50 Francs and Cents	"	1 £ Sterling.
Frankfort		121 Z. V. Florins	"	1 £ Sterling.
Vienna	10	2 Florins and Kreuz.	"	1 £ Sterling.
Genoa	25	35 Lire and Centisimi	"	1 £ Sterling.
Berlin	6	25 Dollars and Silver Gros.	"	1 £ Sterling.
Milan	30	30 Lire A. and Cent.	"	1 £ Sterling.
Leghorn	30	50 Lire Tosc. and Cent.	"	1 £ Sterling.
Lisbon	53½	Pence Sterling for		1 Milreis.
Madrid	47	Pence "		1 Peso of Exchange.
Gibraltar	48½	Pence "		1 Hard Dollar.
Naples	39⅝	Pence "		1 Ducat.
Palermo	119½	Pence "		1 Onza.

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TO THE

FOURTH VOLUME

OF THE

BANKERS' MAGAZINE AND STATISTICAL REGISTER.

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